William P. Kenoi
Mayor

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NOV 23 2015

Clayton S. Honma
Director

Kenneth J. Van Bergen
Deputy Director

County of Hawai'i

DEPARTMENT OF PARKS AND RECREATION
101 Pauahi Street, Suite 6 • Hilo, Hawai'i 96720
(808) 961-8311 • Fax (808) 961-8411

November 2, 2015

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OFFICE OF ENVIRONMENTAL QUALITY CONTROL

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Scott Glenn, Director
Office of Environmental Quality Control
235 South Beretania Street, Suite 702
Honolulu HI 96813

Dear Mr. Glenn:

Subject: **Draft Environmental Assessment for Kaumana Lani County Park, TMK (3rd.) 2-5-060:007, South Hilo District, Island of Hawai'i**

The County of Hawai'i, Department of Parks and Recreation, has prepared the draft environmental assessment for the subject project and anticipates a Finding of No Significant Impact (FONSI) determination. Please publish notice of availability for the EA for this project in the next available edition of the Environmental Notice. We have enclosed the following:

- One paper copy of the Draft EA;
- A CD containing the .pdf file for the EA and a WORD file with the OEQC Environmental Notice Publication Form; and
- A hardcopy of the OEQC publication form

Please contact James Komata at 961-8311 if you have any questions.

Sincerely,

Clayton S. Honma, Director
County of Hawai'i, Department of Parks and Recreation

Attach: As noted above

Cc: (w/o attach) Ron Terry, Ph.D, Project Environmental Consultant

County of Hawai'i is an Equal Opportunity Provider and Employer.

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July 2015 Revision

AGENCY ACTION
SECTION 343-5(b), HRS
PUBLICATION FORM

NOV 23 2015

Project Name Kaumana Lani County Park
HRS §343-5 Trigger(s) Use of County land and County funds
Island: Hawai'i
District: South Hilo
TMK: (3rd) 2-5-060:007
Permits:

National Pollutant Discharge Elimination System Permit (State DOH)
Grading, Grubbing and Work Within County Right-of-Way Permits (County DPW)
Building Permits and Plan Approval (County DPW and Planning)

Proposing/Determination Agency:

County of Hawai'i
Department of Parks and Recreation
101 Pauahi Street, Suite 6
Hilo, Hawai'i 96720
James Komata, 961-8311

Consultant:

Geometrician Associates
PO Box 396
Hilo HI 96721
Ron Terry Ph. (808) 969-7090 rterry@hawaii.rr.com

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OFC OF ENVIRONMENTAL QUALITY CONTROL

Status (check one only):

_x_DEA-AFNSI — Submit the proposing agency notice of determination/transmittal on agency letterhead, a hard copy of DEA, a completed OEQC publication form, along with an electronic word processing summary and a PDF copy (you may send both summary and PDF to oeqchawaii@doh.hawaii.gov); a 30-day comment period ensues upon publication in the periodic bulletin.

__FEA-FONSI — Submit the proposing agency notice of determination/transmittal on agency letterhead, a hard copy of the FEA, an OEQC publication form, along with an electronic word processing summary and a PDF copy (send both summary and PDF to oeqchawaii@doh.hawaii.gov); no comment period ensues upon publication in the periodic bulletin.

__FEA-EISPN — Submit the proposing agency notice of determination/transmittal on agency letterhead, a hard copy of the FEA, an OEQC publication form, along with an electronic word processing summary and PDF copy (you may send both summary and PDF to oeqchawaii@doh.hawaii.gov); a 30-day consultation period ensues upon publication in the periodic bulletin.

__Act 172-12 EISPN — Submit the proposing agency notice of determination on agency letterhead, an OEQC publication form, and an electronic word processing summary (you may send the summary to oeqchawaii@doh.hawaii.gov). NO environmental assessment is required and a 30-day consultation period upon publication in the periodic bulletin.

__DEIS — The proposing agency simultaneously transmits to both the OEQC and the accepting authority, a hard copy of the DEIS, a completed OEQC publication form, a distribution list, along with an electronic word processing summary and PDF copy of the DEIS (you may send both the summary and PDF to oeqchawaii@doh.hawaii.gov); a 45-day comment period ensues upon publication in the periodic bulletin.

__FEIS — The proposing agency simultaneously transmits to both the OEQC and the accepting authority, a hard copy of the FEIS, a completed OEQC publication form, a distribution list, along with an electronic word processing summary and PDF copy of the FEIS (you may send both the summary and PDF to oeqchawaii@doh.hawaii.gov); no comment period ensues upon publication in the periodic bulletin.

__ Section 11-200-23

Determination — The accepting authority simultaneously transmits its determination of acceptance or nonacceptance (pursuant to Section 11-200-23, HAR) of the FEIS to both OEQC and the proposing agency. No comment period ensues upon publication in the periodic bulletin.

__Section 11-200-27 Determination — The accepting authority simultaneously transmits its notice to both the proposing agency and the OEQC that it has reviewed (pursuant to Section 11-200-27, HAR) the previously accepted FEIS and determines that a supplemental EIS is not required. No EA is required and no comment period ensues upon publication in the periodic bulletin.

__Withdrawal (explain)

Summary (Provide proposed action and purpose/need in less than 200 words. Please keep the summary brief and on this one page)**:**

The County of Hawai'i Department of Parks and Recreation proposes to develop a neighborhood park on a 4.7-acre County property south of Hokulani Street in the Kaumana neighborhood of Hilo. The park will be built in phases, with Phase 1 to include land clearing, tree removal, grassing, buffer landscaping, drainage improvements, concrete walking paths, and perimeter fencing with a gate that will be locked outside park hours. Subsequent phases, which are not yet scheduled or funded, may include a parking lot, a covered pavilion with restrooms, playground equipment, a youth baseball field, a soccer field, a basketball court and/or similar recreational facilities/amenities. No impacts to any natural or cultural resources would occur, as the area has been completely graded in the past and no sensitive resources are present on or near the site. Mitigation for impacts includes landscaped buffers on the edges of residential lots, timing of clearing to avoid impacts to listed vertebrate species, NPDES and grading permits with best management practices during construction to avoid erosion and sedimentation, and precautionary conditions related to inadvertent finds of cultural materials. Traffic impacts during construction can be avoided by scheduling, and permanent traffic impacts are unlikely because peak use will not coincide with work and school peak traffic on adjacent major streets.

Kaumana Lani County Park

Draft Environmental Assessment

TMK (3rd) 2-5-060:007
South Hilo District, Hawai‘i Island, State of Hawai‘i

November 2015

Prepared for:
Hawai‘i County
Department of Parks and Recreation
101 Pauahi Street, Suite 6
Hilo, Hawai‘i 96720

DRAFT ENVIRONMENTAL ASSESSMENT

Kaumana Lani County Park

TMK: (3rd) 2-5-060:007, South Hilo District, Island of Hawai‘i

PROPOSING/
APPROVING AGENCY:

County of Hawai‘i
Department of Parks and Recreation
101 Pauahi Street, Suite 6
Hilo, Hawai‘i 96720

CONSULTANT:

Geometrician Associates LLC
P.O. Box 396
Hilo Hawai‘i 96721

CLASS OF ACTION:

Use of County Land and Funds

This document is prepared pursuant to:
The Hawai‘i Environmental Protection Act,
Chapter 343, Hawai‘i Revised Statutes (HRS), and
Title 11, Chapter 200, Hawai‘i Department of Health Administrative Rules (HAR).

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SUMMARY OF THE PROPOSED ACTION, ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

The County of Hawai‘i Department of Parks and Recreation proposes to develop a neighborhood park on a 4.7019-acre County property south of Hokulani Street in the Kaumana neighborhood of Hilo. The park will be built in phases, with Phase 1 to include land clearing, tree removal, grassing, buffer landscaping, drainage improvements, concrete walking paths, and perimeter fencing with a gate that will be locked outside park hours. Subsequent phases, which are not yet scheduled or funded, may include a parking lot, a covered pavilion with restrooms, playground equipment, a youth baseball field, a soccer field, a basketball court and/or similar recreational facilities/amenities.

No impacts to any natural or cultural resources would occur, as the area has been completely graded in the past and no sensitive resources are present on or near the site. Mitigation for impacts includes landscaped buffers on the edges of residential lots, timing of clearing to avoid impacts to listed vertebrate species, NPDES and grading permits with best management practices during construction to avoid erosion and sedimentation, and precautionary conditions related to inadvertent finds of cultural materials. Traffic impacts during construction can be avoided by scheduling, and permanent traffic impacts are unlikely because peak use will not coincide with work and school peak traffic on adjacent major streets.

PART 1: PROJECT DESCRIPTION, PURPOSE AND NEED AND ENVIRONMENTAL ASSESSMENT PROCESS

1.1 Project Description and Location

The County of Hawai‘i Department of Parks and Recreation proposes to develop a neighborhood park on a 4.7019-acre County property south of Hokulani Street in the Kaumana neighborhood of Hilo (the "Proposed Action") (Figures 1- 4). The origin for the idea of a park on the site, and the County acceptance of the donation of the property, was from a recommendation by the Kaumana Central Kumiai in August 1972. The park will be built in phases, with Phase 1 to include land clearing, tree removal, grassing, buffer landscaping, drainage improvements, concrete walking paths, and perimeter fencing with a gate that will be locked outside park hours. Subsequent phases, which are not yet scheduled or funded, may include a parking lot, a covered pavilion with restrooms, playground equipment, a youth baseball field, a soccer field, a basketball court and/or similar recreational facilities/amenities.

1.2 Purpose and Need

Kaumana is a 3-mile long neighborhood centered on Kaumana Drive *mauka* of Komohana Street. Gilbert Carvalho Park, which contains a gym and ballfield on an almost 16-acre property that is just *makai* of Kaumana, is the only major recreational facility in or near this community. Within Kaumana itself, there is only a neighborhood park with a ballfield at the three-acre Ainako Park on Ainako Street. The majority of the population in Kaumana lives *mauka* of Ainako Street in an area that contains no County parks.

Recreation Standards for the County of Hawai‘i contained in the General Plan recommend a park standard of 5 acres per 1,000 population for community and neighborhood parks. The population of Kaumana above Ainako Street was estimated at 4,978 in 2010 (Table 1). A population of almost 5,000 with only one three-acre neighborhood clearly indicates a deficiency of recreational space in the neighborhood. Although not a solution to the lack of recreational facilities in the entire Kaumana area, a neighborhood park represents a contribution to meeting this deficiency and will be a welcome amenity to many users.

Table 1 Population of Kaumana *Mauka* of Ainako Street (Park Service Area)

Census Tract/Block Group	Area	2010 Population	Estimated Percent in Park Service Area	Population Within Park Service Area
208.02:4	Upper Kaumana, Iiwipolena to Akolea, North of Kaumana Drive, and South Side of Ainako	2,131	60	1,279
208.02:3	Lower Kaumana, Aipuni to Iiwipolena, North of Kaumana Drive	618	100	618
208.01:1	Upper Kaumana, Chong Street to Akolea, South Side, Akolea Mauka, all	2,739	95	2,602
208.02:2	Lower Kaumana, Aipuni to Iiwipolena, North of Kaumana Drive, Chong Street to Komohana, South Side	2,396	20	479
TOTAL				4,978

Source: U.S. Census Bureau: http://factfinder2.census.gov/main.html. Estimated by analysis of aerial images and Census maps.

Figure 1
USGS Location Map

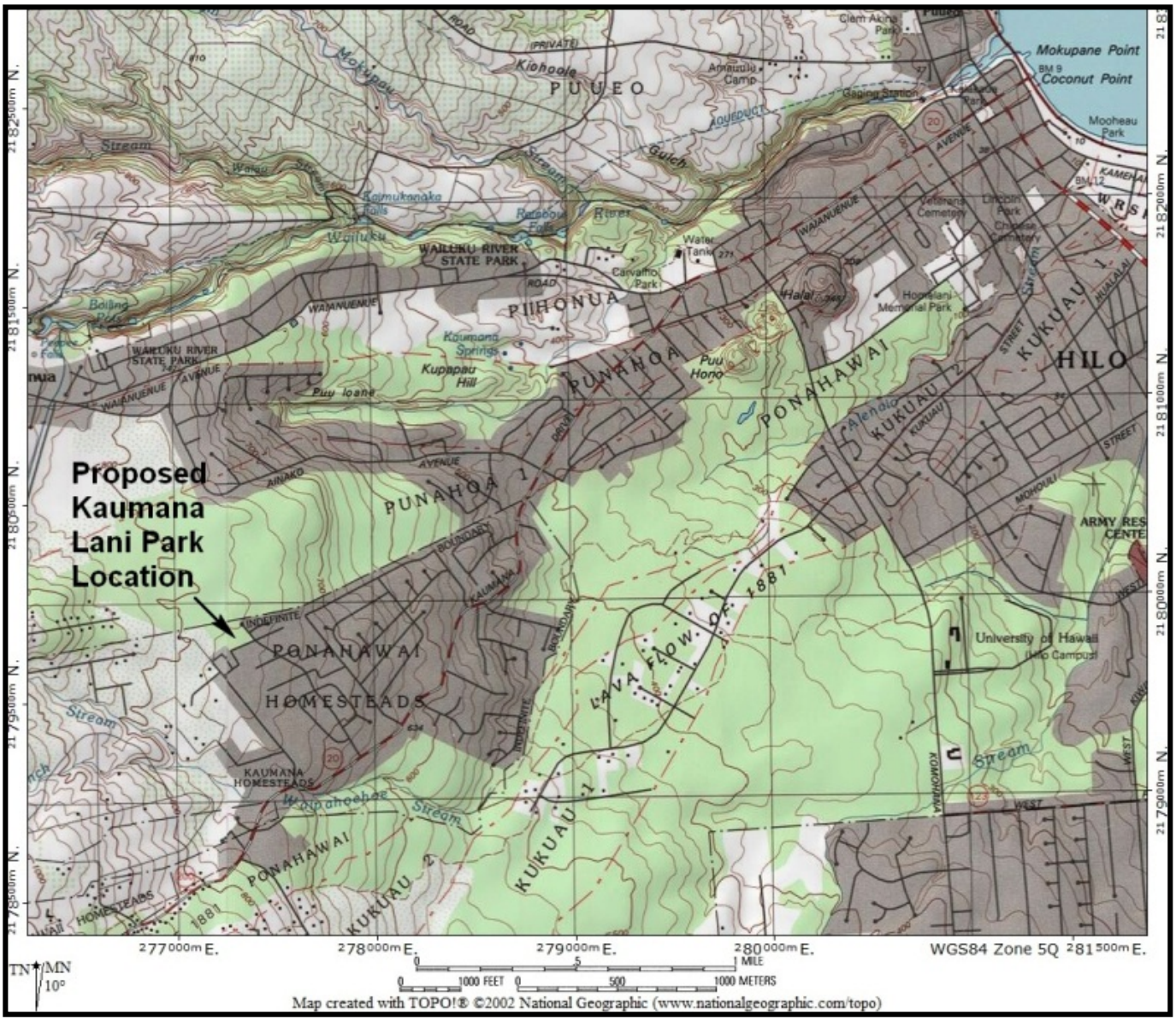


Figure 2
Aerial Image of Project Site

Figure 3
TMK Map

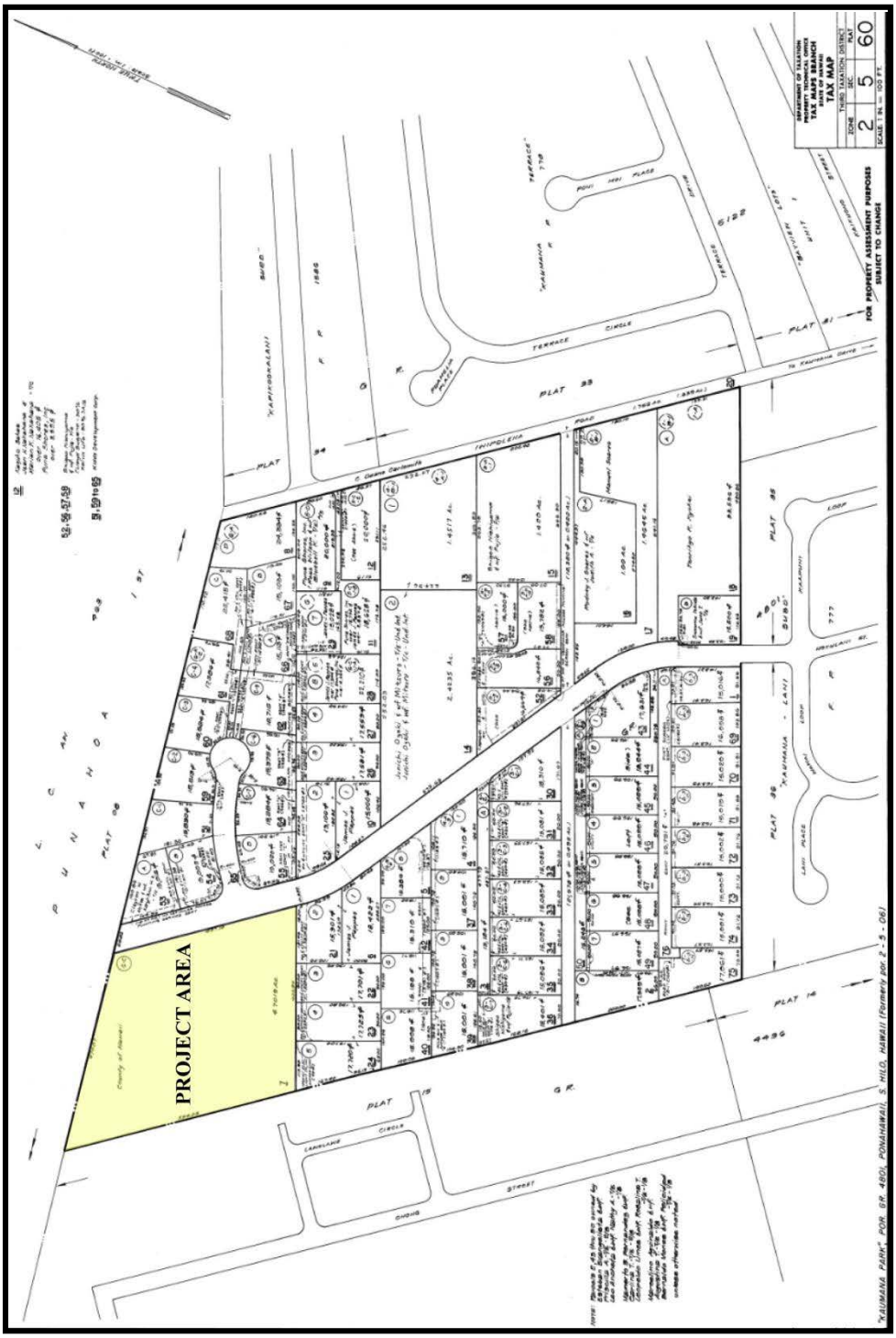
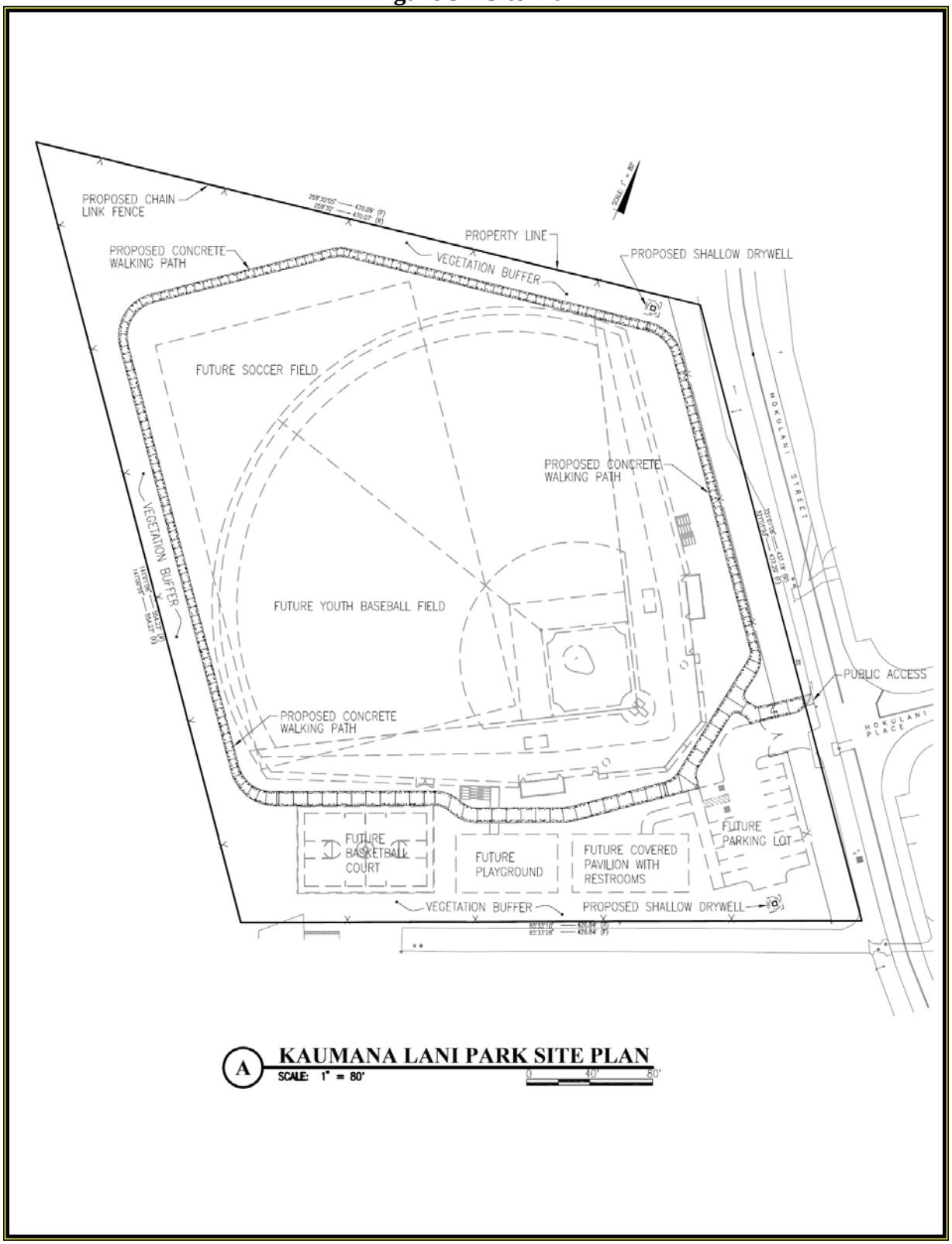


Figure 4. Project Site Photos

Park Property Viewed from Southeast▲ ▼ Park Property Viewed from Northeast

Figure 5 Site Plan



1.3 Environmental Assessment Process

This Environmental Assessment (EA) is being conducted in accordance with Chapter 343 of the Hawai‘i Revised Statutes. This law, along with its implementing regulations, Title 11, Chapter 200, of the Hawai‘i Administrative Rules, is the basis for the environmental impact process in the State of Hawai‘i. According to Chapter 343, an EA is prepared to determine impacts associated with an action, to develop mitigation measures for adverse impacts, and to determine whether any of the impacts are significant according to thirteen specific criteria. Part 4 of this document states the anticipated finding that no significant impacts are expected to occur; Part 5 lists each criterion and presents the preliminary findings for each made by the Hawai‘i County Department of Parks and Recreation, the proposing and approving agency. If, after considering comments to the Draft EA, the approving agency concludes that no significant impacts would be expected to occur, then the agency will issue a Finding of No Significant Impact (FONSI), and the action will be permitted to proceed to any necessary permits. If the agency concludes that significant impacts are expected to occur as a result of the Proposed Action, then an Environmental Impact Statement (EIS) will be prepared.

1.4 Public Involvement and Agency Coordination

The following agencies and organizations were consulted by letter during development of the Environmental Assessment.

State:

Department of Health, Environmental Health Administration
Department of Land and Natural Resources, Land Division
Office of Hawaiian Affairs

County:

Civil Defense Agency
County Council
Department of Public Works
Fire Department
Planning Department
Police Department

Private:

Sierra Club
16 Neighboring Property Owners

Responses received are contained in Appendix 1a. A neighborhood meeting was held with the Hokulani Street Neighborhood Watch Association on April 1, 2012 (see sign-in sheet in Appendix 1a). The meeting was attended by about 15 residents, plus County officials including the Mayor, the County Council representative, P&R officials, and design and environmental consultants. Residents who attended generally expressed that the facility should be a primarily passive park entirely fenced with a 20-foot setback or buffer between park uses and neighboring properties. There was particular support for a walking trail. Residents stated that the park should be closed at night with any driveway access locked to

prevent inappropriate use. There was general support for a future pavilion and restroom and space for some limited active sports fields.

An interested resident whose parcel borders the park parcel to the west and is accessed via Chong Street met with Department of Parks and Recreation to express concern about potential drainage flowing out of the property and excessive buildup of elevation on the site, which are problems that will be avoided by engineering during site design. He also asked that all graded areas be grassed immediately and maintained to avoid erosion or weed growth, which will occur. He further requested that smaller existing trees within the 20-foot buffer area that do not pose a hazard be left in place, a proposal that was considered by Department of Parks and Recreation but dismissed because the species are of no particular significance or rarity and were not able to be accommodated for the most efficient and best use of the park land. This resident also offered an easement from Chong Street to the proposed park through his property for pedestrian and emergency vehicle access in exchange for a limited vehicular easement on the edge of the park. This idea is outside the scope of the current project but the pedestrian access easement continues to be explored.

1.5 Cost and Schedule

Shortly after the EA is complete and permits are obtained, grading and tree removal will begin, and the Phase I improvements, valued at about $800,000, will begin to be constructed. Subsequent phases, which have not yet been scheduled, include improvements valued at about $1,000,000.

PART 2: ALTERNATIVES

2.1 Alternative Locations

As background, a neighborhood park was proposed in 1978 and was the subject of an EA that was published in April of that year. The process included an evaluation of two alternative park sites and one alternative access route. These sites are illustrated on Figure 2 and discussed below.

- Alternative Park Site A. In the 1970s, the County considered purchase and use of a portion of TMK 2-5-06:50 and 61 (since subsumed into other plats), totaling 4.5 acres and owned by S. Ishida and M. Soares. One of the main advantages was that it did not require the extension of Hokulani Street. This extension has since occurred, and the proposed park land has been developed, and this alternative is no longer applicable.
- Alternative Park Site B. In August 1974, then a 6-acre portion of TMK 2-5-08:003 (now part of TMK 2-5-08:24), owned by Kobayashi Development and Construction, Inc., was considered. It is adjacent to the proposed park site. The offer of the site was in conjunction with their proposed development plan and was explored and pursued, but because of delays and access costs, this alternative was subsequently rejected. Currently, this land is part of the Punahoa Mauka subdivision by Akalea LLC (Subdivision Number 06-00404-R). The land adjacent to the park is planned for three separate one-acre lots, and is no longer available for purchase as a park.

The County of Hawai‘i is unaware of any other sites in the area that might be suitable for a County park. No known properties have the particular advantages of the proposed site, which include County ownership, history of a park purpose, road access, and electrical and water utilities. Therefore, no alternative sites have been advanced in this Environmental Assessment.

2.2 Alternative Strategies

Planning efforts in the 1970s proposed the site as an active park with a number of recreational facilities including softball fields, basketball courts, a tot lot, tennis courts and volleyball courts. The 1978 EA specifically addressed this proposal. Although this idea was revisited during early consultation for this EA, community sentiment favored a passive park, which can be partially fulfilled by current funding. The site is no longer being considered as a major active park in its initial phases, although, as discussed in Section 1.1, if the need or demand for active recreational amenities arises in the future, plans for such may be developed.

Some of the recreational goals that would be met by providing a County Park in the area could be accomplished without development of additional park space by having Kaumana residents utilize other facilities in East Hawai‘i for walking. However, they would be obliged to drive at least three miles to these facilities instead of walking, bicycling or taking short drives. Such an approach would not accomplish the main purpose of the project, providing a neighborhood park convenient for Kaumana residents, including children. After careful consideration of alternative strategies, the County does not currently envision any plans for this site that would be worthy of consideration in this EA as an alternative to the proposed park development.

2.3 No Action Alternative

Under the No Action Alternative, the County of Hawai‘i would not construct a park on this or any other site in Kaumana. The benefits provided by a park in terms of open space and public health, recreation and enjoyment would not occur, but there would be no disturbance of the existing ground surface or vegetation, and no impacts to neighbors from park use. The No Action Alternative provides a basis for comparing the impacts of the proposed project.

PART 3: ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

Basic Geographic Setting

The location for the Proposed Action is referred to throughout this EA as the *project site*. The term *project area* is used to describe the general environs of this part of Hilo.

The project site is a 4.7019-acre property south of Hokulani Street in the Kaumana neighborhood of Hilo (Figures 1- 4). It is bordered by residentially zoned property on all sides, with houses already on many of the bordering lots.

3.1 Physical Environment

3.1.1 Climate, Geology, Soils and Geologic Hazards

Environmental Setting

The climate in the area is mild and moist, with an average annual rainfall of about 150 inches and a mean annual temperature of approximately 75 degrees Fahrenheit (UH Hilo-Geography 1998:57). The project site is located at 770 to 790 feet above mean sea level on a single Mauna Loa lava flow dated between 3,000 and 5,000 years before the present (Wolfe and Morris 1996). Soil on the project site is classified by the U.S. Natural Resources Conservation Service (formerly Soil Conservation Service) as Keaukaha series extremely rocky muck with six to twenty percent slopes. This organic and strongly acid soil is typically found up to 8 inches thick with roughly 30 percent rock outcroppings. Permeability is rapid, runoff is slow, and erosion hazard slight. Its capability subclass is VIIs, which means that this soil has very severe limitations that make it very unsuited for cultivation, and restricts its use to mainly pasture and woodland or wildlife. Erosion hazard is slight (U.S. Soil Conservation Service 1973).

The entire Big Island is subject to geologic hazards, especially lava flows and earthquakes. Volcanic hazard as assessed by the U.S. Geological Survey in this area of Hilo is 3 on a scale of ascending risk 9 to 1 (Heliker 1990:23). The hazard risk is based on the fact that Mauna Loa is an active volcano. Volcanic hazard zone 3 areas have had 1 to 5 percent of their land area covered by lava flows or ash since the year 1800, but are at lower risk than zone 2 areas because of their greater distances from recently active vents and/or because the local topography makes it less likely that flows would cover these areas.

The Island of Hawai‘i experiences high seismic activity and is at risk from major earthquake damage (USGS 2000), especially to structures that are poorly designed or built, as the 6.7-magnitude quake of October 15, 2006 demonstrated. The portion of the project site proposed for improvement is graded and flat to low-sloping. There are appropriate setbacks to surrounding steeper slopes. There does not appear to be any risk to damage on the site from seismic activity, subsidence, landslides or other forms of mass wasting.

Impacts and Mitigation Measures

Geologic conditions impose no constraints on the Proposed Action, and development of the park is not imprudent to undertake. Most of the surface of Hawai‘i Island is subject to eventual lava inundation, and any recreational facilities in in Hilo face risk. Given the need for recreation in the area, the County has determined that it is sensible to expand its facilities on the project site. Project design will take the seismic setting into account, and no mitigation measures are expected to be required.

3.1.2 Drainage, Water Features and Water Quality

Existing Environment

The nearest mapped surface water body is Waipahoehoe Stream, located about 0.55 miles south. Smaller, unmapped intermittent drainage are present to the north. Neighbors have reported that runoff travels across the project site, which is currently unimproved and has no drainage facilities, during heavy rains. The Flood Insurance Rate Maps (FIRM) 1551660859 9/16/1988) show that the project site is in Flood Zone X, outside of the 100-year or 500-year floodplain.

Impacts and Mitigation Measures

Land clearing and construction activities, including parking, would occur in an area greater than one acre, and thus will require a National Pollutant Discharge Elimination System (NPDES) permit. Project plans include two shallow drywells to handle the net increase in onsite drainage generated by development. Plans submitted as part of the application for this permit and a County grading permit will specify practices to minimize the potential for sedimentation, erosion and pollution of coastal waters. The County will ensure that its contractor shall perform all earthwork and grading in conformance with:

(a) “Storm Drainage Standards,” County of Hawai‘i, October, 1970, and as revised.
(b) Applicable standards and regulations of Chapter 27, “Flood Control,” of the Hawai‘i County Code.
(c) Applicable standards and regulations of Chapter 10, “Erosion and Sedimentation Control,” of the Hawai‘i County Code.
(d) Applicable standards of and regulations of Department of Health Water Quality rules at Chapter 11-55 and 11-54, Hawai‘i Administrative Rules.

Specific, structural Best Management Practices will include, but may not be limited to, the following practices:

- Silt fences and biosocks in various areas of the construction site
- Gravel bag filters/biosocks around stockpiles, debris areas, and vehicle & equipment storage areas
- Construction equipment wash sediment basin with an impermeable liner
- Emplacement of hydro-seed mulch with bonded fiber matrix and fertilizer for areas of exposed soil created by grading

- Block and gravel filter protection at the drywells
- Construction entrance stabilized with gravel

3.1.3 Flora, Fauna and Ecosystems

Existing Environment

The natural vegetation of this part of Hilo was most likely lowland rain forest dominated by *ʻōhiʻa* (*Metrosideros polymorpha*) and *koa* (*Acacia koa)* (Gagne and Cuddihy 1990). These original communities, however, have been destroyed or heavily degraded by traditional farming, later sugar cane cultivation and urban land use. No trace of the original vegetation remains in the project area. The project site appears to have been graded at several times in the past and is now covered with a weedy growth of non-native trees (see photos in Figure 4). Table 1 lists the plant species detected on the site. Only five common native species were observed (four ferns and a sedge), and no plant species classified as threatened or endangered (USFWS 2012) are present or would be expected on the project site.

The suburban project site is not habitat for native fauna. Typical expected birds include Common Myna (*Acridotheres tristis*), Northern Cardinal (*Cardinalis cardinalis*), Spotted Dove (*Streptopelia chinensis*), Zebra Dove (*Geopelia striata*), Japanese White-eye (*Zosterops japonicus*), Melodious Laughing Thrush (*Leucodioptron canorum*), and House Finch (*Carpodacus mexicanus*). No native birds were identified during site visits. Few native forest birds would be expected on the project site due to its low elevation, alien vegetation and lack of adequate forest resources. Several native birds could occasionally be present, especially the Hawaiʻi *ʻAmakihi* (*Hemignathus virens virens*). Rare visitors to the site potentially include the *ʻElepaio* (*Chasiempis sandwichensis*), the Hawaiian Thrush or *ʻOmaʻo* (*Myadestes obscurus*), and even the *ʻApapane* (*Himatione sanguinea*) (pers. comm. Dr. Patrick Hart of UH-Hilo to Ron Terry, January 2012).

As with all of the island of Hawaiʻi, several endangered native terrestrial vertebrates may overfly, roost, nest, or utilize resources in the general project area of urban Hilo. These include the endangered Hawaiian Hawk (*Buteo solitarius*), the endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*), the endangered Hawaiian Petrel (*Pterodroma sandwichensis*), and the threatened Newell's Shearwater (*Puffinus auricularis newelli*).

Aside from the bat, other mammals in the project area are introduced species, including feral cats (*Felis catus*), feral pigs (*Sus scrofa*), small Indian mongooses (*Herpestes a. auropunctatus*) and various species of rats (*Rattus* spp.). None are of conservation concern and all are deleterious to native flora and fauna.

Impacts and Mitigation Measures

Because of the lack of native ecosystems or threatened or endangered species on the project site, the Proposed Action would have no adverse impacts to native vegetation or habitat. Mitigation measures will be instituted in order to avoid impacts to Hawaiian Hawks, Hawaiian hoary bats, and listed seabirds:

Table 2 Plant Species Observed on Project Site

Scientific Name	Family	Common Name	Life Form	Status*
Adenophorus sp.	Grammitidaceae	Adenophorus	Fern	E
Ageratum conyzoides	Asteraceae	Ageratum	Herb	A
Ageratum houstonianum	Asteraceae	Ageratum	Herb	A
Arundina graminifolia	Orchidaceae	Bamboo Orchid	Herb	A
Axonopus fissifolius	Poaceae	Narrow-leaved Carpet Grass	Herb	A
Begonia spp.	Begoniaceae	Begonia	Herb	A
Blechnum appendiculatum	Blechnaceae	Blechnum	Fern	A
Buddleia asiatica	Buddleiaceae	Buddleia	Shrub	A
Castilleja arvensis	Scrophulariaceae	Indian Paintbrush	Herb	A
Casuarina sp.	Casuarinaceae	Ironwood	Tree	A
Chamaecrista nictitans	Fabaceae	Partridge Pea	Herb	A
Chamaesyce prostrata	Euphorbiaceae	Prostrate Spurge	Herb	A
Clidemia hirta	Melastomataceae	Koster's Curse	Herb	A
Clusia rosea	Clusiaceae	Autograph Tree	Tree	A
Coix lachrymal-jobi	Poaceae	Job's Tears	Herb	A
Commelina diffusa	Commelinaceae	Honohono	Herb	A
Conyza bonariensis	Asteraceae	Horseweed	Herb	A
Crotalaria retusa	Fabaceae	Crotalaria	Herb	A
Crotalaria sp.	Fabaceae	Crotalaria	Herb	A
Desmodium triflorum	Fabaceae	Desmodium	Herb	A
Dicranopteris linearis	Gleicheniaceae	Uluhe	Fern	I
Dissotis rotundifolia	Melastomataceae	Dissotis	Herb	A
Drymaria cordata	Caryophyllaceae	Drymaria	Herb	A
Erechtites sp.	Asteraceae	Fireweed	Herb	A
Eucalyptus robusta	Myrtaceae	Swamp Mahogany	Tree	A
Hedychium sp.	Zingiberaceae	Ginger	Herb	A
Hyptis pectinata	Lamiaceae	Comb Hyptis	Herb	A
Impatiens walleriana	Balsaminaceae	Impatiens	Herb	A
Ipomoea triloba	Convolvulaceae	Little Bell	Vine	A
Kyllinga nemoralis	Cyperaceae	Kyllinga	Herb	A
Lepisorus thunbergianus	Polypodiaceae	Pleopeltis	Fern	I
Lygodium japonicum	Schizaeaceae	Japanese Climbing Fern	Fern	A
Machaerina angustifolia	Cyperaceae	'Uki	Herb	I
Megathyrsus maximus	Poaceae	Guinea Grass	Herb	A
Melaleuca quinquenervia	Myrtaceae	Paperbark	Tree	A
Melastoma sp.	Melastomataceae	Melastoma	Shrub	A
Melinis minutiflora	Poaceae	Molasses Grass	Herb	A
Melochia umbellata	Sterculiaceae	Melochia	Tree	A
Mimosa pudica	Fabaceae	Sleeping Grass	Herb	A
Nephrolepis exaltata	Nephrolepidaceae	Sword Fern	Fern	I
Nephrolepis multiflora	Nephrolepidaceae	Sword Fern	Fern	A
Paederia foetida	Rubiaceae	Maile Pilau	Vine	A
Panicum repens	Poaceae	Torpedo Grass	Herb	A
Paraserianthes falcataria	Fabaceae	Albizia	Tree	A

Paspalum conjugatum	Poaceae	Hilo Grass	Herb	A
Paspalum sp.	Poaceae	Paspalum	Herb	A
Paspalum urvillei	Poaceae	Vasey Grass	Herb	A
Pennisetum purpureum	Poaceae	Elephant Grass	Herb	A
Persea americana	Lauraceae	Avocado	Tree	A
Phaius tankarvilleae	Orchidaceae	Chinese Ground Orchid	Herb	A
Philodendron sp.	Araceae	Philodendron	Herb	A
Phlebodium aureum	Polypodiaceae	Phlebodium	Fern	A
Phyllanthus debilis	Euphorbiaceae	Niruri	Herb	A
Pityrogramma calomelanos	Pteridaceae	Silver Fern	Fern	A
Plantago lanceolata	Plantaginaceae	Buckthorn	Herb	A
Pluchea symphytifolia	Asteraceae	Sourbush	Herb	A
Polygala paniculata	Polygalaceae	Milkwort	Herb	A
Psidium cattleianum	Myrtaceae	Strawberry guava	Tree	A
Rhynchospora caduca	Cyperaceae	Rhynchospora	Herb	A
Rubus rosifolius	Rosaceae	Thimbleberry	Herb	A
Sacciolepis indica	Poaceae	Glenwood Grass	Herb	A
Schizachyrium condensatum	Poaceae	Beardgrass	Herb	A
Setaria palmifolia	Poaceae	Palm Grass	Herb	A
Spathodea campanulata	Bignoniaceae	African Tulip	Tree	A
Spermacoce assurgens	Rubiaceae	Buttonweed	Herb	A
Sphagneticola trilobata	Asteraceae	Wedelia	Herb	A
Sphenomeris chinensis	Lindsaeaceae	Pala‘a	Fern	I
Stachytarpheta sp.	Verbenaceae	Stachytarpheta	Herb	A
Thunbergia fragrans	Acanthaceae	White Thunbergia	Vine	A
Trema orientalis	Ulmaceae	Charcoal Tree	Tree	A
Urochloa mutica	Poaceae	California Grass	Herb	A

*A = alien, E = endemic, I = indigenous, End = Federal and State listed Endangered Species (none present)

- There will be no clearing of woody vegetation taller than 15 feet during the bat pupping season, which runs from June 1 through September 15 each year.
- There will be no earthmoving or tree cutting during the breeding season for Hawaiian Hawks (March through September). If this time period cannot be avoided, the County will arrange for a hawk nest search to be conducted by a qualified biologist, and if hawk nests are present in or near the project site, all land clearing activity will cease until the expiration of the breeding season.
- No lighting is expected, but if any lights are installed for either construction or use of the park, they will be required to be shielded in conformance with the Hawai‘i County Outdoor Lighting Ordinance to reduce the risk that seabirds may be attracted to and then disoriented by the lighting. Additionally, no nighttime construction work will be allowed during the seabird-fledging season, which runs from September 15 through December 15 each year.

3.1.4 Air Quality, Noise, and Scenic Resources

Environmental Setting

Air pollution in East Hawai‘i is minimal, and is mainly derived from volcanic emissions of sulfur dioxide, which convert into particulate sulfate and produce a volcanic haze (vog) that occasionally blankets the district. Persistent trade winds keep the project area relatively free of vog for most of the year.

Noise on the project site is moderate and derived mainly from motor vehicles on Hokulani Street, with some contribution from adjacent residential activities.

The project area contains no sites considered significant for their scenic character in the Hawai‘i County General Plan, and no other scenic resources.

Impacts and Mitigation Measures

The Proposed Action would not measurably affect air quality, noise levels or scenic sites recognized in the Hawai‘i County General Plan. Increase of vehicular traffic through the access route to the proposed park will create additional traffic noise, as will park uses, but such increases are expected to be modest and would not require mitigations. Exhaust emissions from park-destined vehicular traffic should not create a noticeable increase of air pollutants to the immediate vicinity. Emissions for the general community may actually be decreased by the reduction of travel distance to a park facility. The park will include some landscaping provisions in areas bordering residential lots to shield views for residents as the need arises via request.

3.1.5 Hazardous Substances, Toxic Waste and Hazardous Conditions

Environmental Setting, Impacts and Mitigation Measures

Based on onsite inspection and the lack of any known former use on the property since the 1950s, it is presumed, but not ascertained, that the project site contains no hazardous or toxic substances and exhibits no other hazardous conditions. If evidence of suspicious materials or conditions appears during additional survey, design, or construction, P&R will undertake a systematic assessment of the property.

3.2 Socioeconomic and Cultural

3.2.1 Socioeconomic Characteristics

The project would affect and benefit the town of Hilo and more specifically the Kaumana neighborhood. Table 2 provides information on the socioeconomic characteristics of Hilo from the U.S. 2010 Census of Population. The majority of the population is Asian or Pacific Islander. Those over 65 years old make up 18 percent of the population. Several segments of the population that typically exhibit disadvantaged measures of social welfare are disproportionately represented in the population of Hilo as compared to the State of Hawai‘i. Median family income is less than 65 percent that of the County as a whole. More than 15 percent of individuals have income below the poverty level, double the statewide rate. Similar patterns hold for households receiving welfare, food stamps, and disability payments. Kaumana is an older, established community that is in many respects a microcosm of Hilo.

Impacts

The Proposed Action would benefit recreational users by providing an area for walking, lawn activities, community gatherings, and, potentially, limited active sports. There will be particular benefit for residents of Hokulani Street and adjoining streets (which together are home to perhaps 300 residents), as well as residents of the developing Punahoa Mauka Subdivision on Haleloke Street, which now connects to Hokulani Street. The availability of on-street parking fronting the park site, as well as a future parking lot, increases the utility of the park for users who may drive in from other Hilo neighborhoods. As discussed above, it may be possible to obtain a pedestrian easement to the park from Chong Street to allow that street’s residents, and particularly children, safe and convenient access to the park.

Based on the County’s experience with the newly opened Machado Acres Park in the Waiakea area of Hilo, passive parks with little more than a lawn and walking trails, as proposed for Phase I of the project, have proven to be popular with area residents. However, it should be noted, that Machado Acres Park is principally a passive walking park without sufficient space to accommodate team sport practices and impromptu sporting activities.

Table 3: Selected Socioeconomic Characteristics of Hilo

SUBJECT	NUMBER	PERCENT
SEX AND AGE		
Total population	43,263	100.0
Median age (years)	40.5	(X)
16 years and over	35,193	81.3
65 years and over	7,807	18.0
85 years and over	1,382	3.2
RACE		
Total population	43,263	100.0
One Race	29,199	67.5
White	7,617	17.6
Black or African American	227	0.5
American Indian and Alaska Native	132	0.3
Asian	14,833	34.3
Asian Indian	49	0.1
Chinese	645	1.5
Filipino	2,637	6.1
Japanese	9,550	22.1
Korean	419	1.0
Native Hawaiian	4,467	10.3
Two or More Races	14,064	32.5
Black or African American alone	198	0.5
American Indian and Alaska Native alone	82	0.2
Asian alone	14,450	33.4
Native Hawaiian and Other Pacific Islander alone	5,771	13.3
Some Other Race alone	51	0.1
Two or More Races	11,316	26.2
HOUSEHOLDS BY TYPE		
Total households	15,483	100.0
Family households (families)	10,287	66.4
With own children under 18 years	3,766	24.3
Husband-wife family	7,034	45.4
With own children under 18 years	2,307	14.9
Male householder, no wife present	975	6.3
With own children under 18 years	432	2.8
Female householder, no husband present	2,278	14.7
With own children under 18 years	1,027	6.6

3.2.2 Cultural Setting

Cultural and Historical Background for Mauka Hilo

The earliest historical knowledge of Hilo comes from legends written by Kamakau (1961) of a 16th century chief ‘Umi-a-Liloa (son of Liloa), who at that time ruled the entire island of Hawai‘i. Descendants of ‘Umi and his sister-wife were referred to as “Kona” chiefs, controlling Ka‘ū, Kona, and Kohala, while descendants of ‘Umi and his Maui wife were “Hilo” chiefs, controlling Hāmākua, Hilo, and Puna (Kelly 1981:1). According to Kamakau (1961), both sides fought over control of the island, desiring access to resources such as feathers, *māmaki* tapa, and canoes on the Hilo side, and *wauke* tapa, and warm lands and waters on the Kona side (c.f. Kelly 1981:3).

As part of an archaeological assessment, Maly (1996) conducted historical research for the lands of Wainaku, Pōnahawai, Waiākea, and Pi‘ihonua. He discussed the significance of the use of the Hawaiian word *wai* (water) in the place names: Pōnahawai, Waiākea, Wainaku, and Wailuku (River). According to Maly, the word *wai* has strong metaphorical associations with the Hawaiian concept of wealth (*waiwai*), stressing its cultural importance (Maly 1996:A-2). In this context, the importance of Hilo can be better understood, with its copious streams that fed taro pondfields and its numerous fishponds.

Sometime near the end of the 16th century or early in the 17th century, the lands of Hilo were divided into *ahupua‘a,* which till today retain their original names (Kelly 1981:3). These include the *ahupua‘a* of Pu‘u‘eo, Pi‘ihonua, Punahoa, Pōnahawai (where the current project site is located), Kūkūau and Waiākea. The design of these land divisions was such that residents could have access to all that they needed to live, with ocean resources at the coast, and agricultural and forest resources in the interior. However, only Pi‘ihonua and Waiākea provided access to the full range of resources stretching from the sea up to 6,000 feet along the slopes of Mauna Kea (Kelly 1981:5).

Historical accounts (McEldowney 1979) placed the project site in a zone of agricultural productivity. As Isabella Bird recorded upon arriving in Hilo in 1873:

> “Above Hilo, broad lands sweeping up cloudwards, with their sugar cane, *kalo*, melons, pine-apples, and banana groves suggest the boundless liberality of Nature” (Bird 1964:38).

Handy and Handy (1972) also described the general region as an agricultural area:

> “On the lava strewn plain of Waiakea and on the slopes between Waiakea and Wailuku River, dry taro was formerly planted wherever there was enough soil. There were forest plantations in Panaewa and in all the lower fern-forest zone above Hilo town along the course of the Wailuku River” (Handy and Handy 1972:539).

Maly (1996) referred to a 1922 article from the Hawaiian Language newspaper, *Ka Nupepa Kū‘oku‘a*, where planting on *pāhoehoe* lava flats is described:

> "There are *pahoehoe* lava beds walled in by the ancestors in which sweet potatoes and sugar cane were planted and they are still growing today. Not only one or two but several times forty (*mau ka'au*) of them. The house sites are still there, not one or two but several times four hundred in the woods of the Panaewa. Our indigenous bananas are growing wild, these were planted by the hands of our ancestors" (Maly 1996:A-2).

Ponahawai Ahupua'a

The project area lands are in Ponahawai Ahupua'a, in a land-use area historically documented as homestead lands (Donn 1991). The *ahupua'a* of Ponahawai appears to have been given by Kamehameha to Keawe-a-Heulu, one of his trusted warriors (Kelly. 1981:40). At the start of the Māhele, Ponahawai was given up by Keawe-a-Heulu's nephew Kinimaka. The *ahupua'a* became Crown Lands during the Māhele and in the following years numerous, small Land Grants were awarded within the *ahupua'a*. No Land Commission awards or Land Grants were made near the project site.

Following the *Māhele,* the population of Hilo grew and scattered upland habitation gave way to other activities (McEldowney 1979:37). Visits by ships representing foreign governments, whaling, the establishment and development of Christian missions in the Hilo area, the exploitation of sandalwood for foreign trade, the legalization of private land ownership, cattle ranching, and sugar cane cultivation all induced changes in long-established patterns of settlement and land-use patterns (Kelly 1981). Hilo became the center of population and settlements in outlying regions declined or disappeared. While food was still grown for consumption, greater areas of land were continually given over to the specialized cultivation and processing of commercial foodstuffs for export. Sugar cane plantations dominated the uplands, displacing traditional farming, and processing and shipping facilities were established near the shore, crowding out or destroying coastal settlements. Commercial sugar production lasted in Ponahawai until the mid-twentieth century, at which time many of the fields were converted to pasturage associated with cattle ranching.

In 1894, the government opened the Ponahawai Homestead Lots. Road improvements over the next six years gave access to more lots and spurred development in the area. In 1901 Antone Carvalho bought 110 acres (L.G. 4496) bordering the west edge of the project site. Carvalho sold the property to Charles Chong who subdivided it into house lots. The property just to the west was used briefly as a POW camp during World War II and later for rental housing (see next section for details).

Existing Cultural Resources

The project site has been extensively disturbed by agriculture and later urban uses. As discussed in the next section, no significant archaeological remains reflecting cultural history or supporting cultural values appear to be present. Furthermore, no caves, springs, *pu'u*, native forest groves, gathering resources or other natural features are present on or near the project site. The vegetation is highly disturbed and does not contain the quality and quantity or resources that would be important for native gathering. The project site does not support any traditional resource uses, nor are there any Hawaiian customary and traditional rights or practices known to be associated with the property. Based on historical research, botanical reconnaissance and inquiries with potentially knowledgeable informants (including the Office of

Hawaiian Affairs), it would appear that no known valuable natural, cultural or historical resources are present on the project site.

Cultural Resources: Impacts and Mitigation Measures

There are no indications so far from literature review or consultation with the State Historic Preservation Division (SHPD), the Office of Hawaiian Affairs (OHA), or neighbors knowledgeable about Hawaiian cultural practices that there are any traditional cultural properties or practices on or near the project site. Therefore, the proposed construction and maintenance of the park does not appear likely to impact any culturally valued resources or cultural practices. Various parties including OHA and SHPD were supplied a copy of the Draft EA in order to help evaluate and finalize this finding.

3.2.3 Archaeology and Historic Properties

An archaeological inventory survey of the property was conducted by Scientific Consultant Services, Inc. The study is attached as Appendix 2 and summarized below.

Existing Environment

The cultural and historical background of the area prior to 1940 is discussed in the previous section. Although the land was undoubtedly used for cultivation and gathering, no physical evidence of this remains today, as later disturbance, including vegetation clearing, grading and construction, have obscured any traces.

During WWII the Army's 27th Infantry division was housed and trained on the property (Narimatsu 2010). Later, the Marines were stationed there and Japanese prisoners of war were confined there. The camp became known as Camp POW. After the war, Chong converted the camp buildings into rental properties (pers. comm. Paul Brotzman to Glenn Escott, February 2012). These buildings were finally demolished in the 1980s for safety reasons.

An archaeological survey of the project site was conducted on January 20, 2012 by Glenn Escott M.A., who walked a series of east/west traverses spaced ten meters apart over the entire project site. Ground visibility was good as most of the project area has been bulldozed and cleared in the past. Two concrete foundations were located on the current project area parcel. They are in close proximity to each other and were recorded as a single site, termed Site TS-1. It was determined that the site was a modern (1940s to 1970s) structure, most recently used as a residential rental, based on household refuse that dates to that era. The site is also likely part of the remains of the Camp POW buildings used by the military during WWII. Appendix 2 contains descriptions and diagrams of this site.

The concrete foundations site was assessed for significance as outlined in Hawai‘i Administrative Rules §13-275-6 as significant under criterion "D," as it is likely to yield information important to history. The two foundations have been altered by weathering and demolition, and are in poor condition. The site no longer has the integrity to be considered significant under any other criteria, such as association with

events that have made a significant contribution to the broad patterns of our history, or embodiment of distinctive characteristics of a type, period, or method of construction.

Impacts and Mitigation Measures

The archaeologist determined that historic documentation, oral interviews, and physical data collected and recorded has adequately ascertained the timing and function of Site TS-1 site, and he recommended no further work. The inventory survey was officially transmitted to the State Historic Preservation Division (SHPD) for review, comment and concurrence in February 2012, and by letter of October 11, 2013 (see end of Appendix 2), SHPD concurred with the findings.

In the unlikely event that archaeological resources or human remains are encountered during future park development activities, contract specifications will require that work in the immediate area of the discovery shall be halted and DLNR-SHPD contacted as outlined in Hawai‘i Administrative Rules 13§13-275-12.

3.3 Infrastructure

3.3.1 Utilities

Existing Facilities and Services and Impacts

Electrical power to the site is supplied by Hawai‘i Electric Light Company (HELCO), a privately owned utility company regulated by the State Public Utilities Commission, via their island-wide distribution network. Telephone service is available from Hawaiian Telcom. No municipal wastewater system is present in the area. Potable water is available at the site via an existing 6-inch Department of Water Supply water line in Hokulani Street that connects to a water line within the newly developed Punahoa Mauka Subdivision on Haleloke Street, just *mauka* of the property.

The Proposed Action of park development would not have any substantial impact on existing utilities. Construction of Phase I of the project and subsequent use will not require any utilities other than temporary irrigation lines for landscaping establishment. Subsequent phases will require electricity and permanent water service. It is expected that the water requirements of the park can be met by existing water facilities. As part of future phases, an onsite Individual Wastewater System including a septic system with an absorption bed conforming to all applicable requirements of the State Department of Health will be built to treat wastewater.

3.3.2 Roadways and Traffic

Existing Facilities, Impacts and Mitigation Measures

The site is accessed by Hokulani Street (see Figure 1), which has a 50 to 60-foot right-of-way. Hokulani Street exits onto Kaumana Drive, a heavily used thoroughfare. When the Punahoa Mauka subdivision was completed in 2013, it extended Hokulani Street and connected it via Haleloke Street through to Akolea

Road. This has generated a modest degree of additional traffic, as it represents another route from the top of Waianuenue Avenue to Kaumana Drive.

Use of the site for a park will increase vehicular traffic, but because it will be a primarily a passive park with limited active sports uses planned for some time in the future, such increase is expected to be modest. The major usage of Kaumana Lani Park would not occur during peak traffic hours.

It should be noted that the Hawai‘i County Police Department in a letter of February 13, 2012 (see Appendix 1a for letter), expressed the opinion that an increase in pedestrian and vehicular traffic will pose a safety issue for pedestrians. Installation of sidewalks and a traffic signal were recommended for consideration. The Hawai‘i County Department of Parks and Recreation considered these comments and agreed that additional pedestrian and vehicular traffic will occur. Since that time, speed humps paid for by the developers of the Punahoa Mauka Subdivision have been installed on Hokulani Street and Haleloke Street. This has largely mitigated concerns about speeding traffic and pedestrian safety.

3.4 Secondary and Cumulative Impacts

The project will not involve any secondary or cumulative impacts, such as population changes or effects on public facilities.

Cumulative impacts result when implementation of several projects that individually have limited impacts combine to produce more severe impacts or conflicts in mitigation measures. The Proposed Action of park development will have limited and temporary construction period impacts that would last over the course of approximately six months for the initial phase, and for as yet undetermined periods associated with future phases. The only nearby project with a potential to interact is the ongoing buildout of single family residences within the adjacent Punahoa Mauka subdivision. As home construction is sporadic, there is likely to be some construction overlap with Kaumana Lani Park development. Construction impacts such as noise, traffic, dust and sedimentation theoretically have the potential to accumulate. However, the small scale of subdivision construction (typically no more than two homes are under construction at any given time, and fewer and fewer of the several dozen lots each year remain undeveloped) makes any substantial impact interaction very unlikely, and no mitigation should be necessary.

3.5 Required Permits and Approvals

The following permits and approvals would be required:

- National Pollutant Discharge Elimination System Permit (State DOH)
- Grading, Grubbing and Driveway Permits (County DPW)
- Building Permits and Plan Approval (County DPW and Planning)

3.6 Consistency with Government Plans and Policies

3.6.1 Hawai‘i State Plan

Adopted in 1978 and last revised in 1991 (Hawai‘i Revised Statutes, Chapter 226, as amended), the Plan establishes a set of themes, goals, objectives and policies that are meant to guide the State's long-run growth and development activities. The three themes that express the basic purpose of the *Hawai‘i State Plan* are individual and family self-sufficiency, social and economic mobility and community or social well-being. The Proposed Action would promote these goals by providing an appropriate site for additional recreational and educational opportunities for the project area, thereby enhancing quality-of-life and community and social well-being.

3.6.2 Hawai‘i County General Plan and Zoning

The *General Plan* for the County of Hawai‘i is a policy document expressing the broad goals and policies for the long-range development of the Island of Hawai‘i. The plan was adopted by ordinance in 1989 and revised in 2005 (Hawai‘i County Department of Planning). The *General Plan* itself is organized into thirteen elements, with policies, objectives, standards, and principles for each. There are also discussions of the specific applicability of each element to the nine judicial districts comprising the County of Hawai‘i. Most relevant to the proposed project are the following Goal and Policies, and Courses of Action of particular chapters of the General Plan:

HISTORIC SITES
6.2 GOALS
(a) Protect, restore, and enhance the sites, buildings, and objects of significant historical and cultural importance to Hawai‘i.
(b) Appropriate access to significant historic sites, buildings, and objects of public interest should be made available.

Discussion: The Proposed Action has involved appropriate inventory survey to determine the presence and significance of historic sites. Therefore the action satisfies relevant goals, policies, and courses of action for historic sites in Hawai‘i County.

NATURAL BEAUTY
7.2 GOALS
(a) Protect, preserve and enhance the quality of areas endowed with natural beauty, including the quality of coastal scenic resources.
(b) Protect scenic vistas and view planes from becoming obstructed.
(c) Maximize opportunities for present and future generations to appreciate and enjoy natural and scenic beauty.
7.3 POLICIES
(a) Increase public pedestrian access opportunities to scenic places and vistas.
(d) Access easement to public or private lands that have natural or scenic value shall be provided or acquired for the public.

(i) Do not allow incompatible construction in areas of natural beauty.

Discussion: The Proposed Action does not involve scenic areas or vantages and would not be inconsistent with the natural beauty of the Hilo area. Therefore the action is consistent with relevant goals, policies, and courses of action of the Natural Beauty section of the Hawai‘i County General Plan.

NATURAL RESOURCES

8.2 GOALS

(a) Protect and conserve the natural resources from undue exploitation, encroachment and damage.
(b) Provide opportunities for recreational, economic, and educational needs without despoiling or endangering natural resources.
(c) Protect and promote the prudent use of Hawaii's unique, fragile, and significant environmental and natural resources.
(e) Protect and effectively manage Hawaii's open space, watersheds, shoreline, and natural areas.

8.3 POLICIES

(b) Encourage a program of collection and dissemination of basic data concerning natural resources.
(h) Encourage public and private agencies to manage the natural resources in a manner that avoids or minimizes adverse effects on the environment and depletion of energy and natural resources to the fullest extent.
(i) Encourage an overall conservation ethic in the use of Hawaii's resources by protecting, preserving, and conserving the critical and significant natural resources of the County of Hawaii.
(u) Ensure that activities authorized or funded by the County do not damage important natural resources.

Discussion: The project does not involve destruction of natural resources and is consistent with the goals, standards and policies of the Natural Resources chapter of the Hawai‘i County General Plan.

RECREATION

12.2 GOALS

(a) Provide a wide variety of recreational opportunities for the residents and visitors of the County.
(b) Maintain the natural beauty of recreation areas.
(c) Provide a diversity of environments for active and passive pursuits.

12.3 POLICIES

(a) Strive to equitably allocate facility-based parks among the districts relative to population, with public input to determine the locations and types of facilities.
(c) Recreational facilities shall reflect the natural, historic, and cultural character of the area.
(d) The use of land adjoining recreation areas shall be compatible with community values, physical resources, and recreation potential.
(g) Facilities for compatible multiple uses shall be provided.
(h) Provide facilities and a broad recreational program for all age groups, with special considerations for the handicapped, the elderly, and young children.
(i) Coordinate recreational programs and facilities with governmental and private agencies and organizations. Innovative ideas for improving recreational facilities and opportunities shall be considered.

(j) Develop local citizen leadership and participation in recreation planning, maintenance, and programming.

(s) Consider alternative sources of funding for recreational facilities.

12.4 STANDARDS

(d) Neighborhood Parks:

- Provide open space in urbanizing areas for the general aesthetic enjoyment of the outdoors, play areas for young children, and a social gathering place for the neighborhood.
- Up to 4 acres, within the center of the neighborhood and preferably adjacent to a school.
- Minimum facilities include: restrooms; drinking water; walking and jogging paths (bike and skating paths); courts for basketball, volleyball and tennis; ballfields for tetherball, baseball/softball and soccer; play area and equipment for young children; and an adequate parking area.

12.5.2.2 COURSES OF ACTION

(d) Community and/or neighborhood recreational areas should be provided in areas such as Piihonua, upper Ponahawai, Kaumana-Ainako, upper Kaumana, Haihai, and upper Waiakea.

Discussion: The Proposed Action is an appropriately scaled neighborhood park planned with citizen input and focused on a broad range of age groups, and therefore satisfies relevant goals and policies. Local residents have expressed in meetings a preference for a primarily passive park that does not provide all of the features specified by neighborhood parks but satisfies the general goals of such parks for general aesthetic enjoyment of the outdoors, play areas for young children, limited active sports amenities, and a social gathering place. The project implements the referenced course of action.

The *Hawai‘i County General Plan Land Use Pattern Allocation Guide (LUPAG)*. The LUPAG map component of the *General Plan* is a graphic representation of the Plan’s goals, policies, and standards as well as of the physical relationship between land uses. It also establishes the basic urban and non-urban form for areas within the planned public and cultural facilities, public utilities and safety features, and transportation corridors. The project site is classified as Low Density Urban in the LUPAG. Use of the project site as a park is consistent with this designation.

Hawai‘i County Zoning and SMA. The project site is zoned Single Family Residential (RS-15) and the park is a permitted use in this zoning category. The property is not situated within the County’s Special Management Area (SMA).

3.6.3 Hawai‘i State Land Use Law

All land in the State of Hawai‘i is classified into one of four land use categories – Urban, Rural, Agricultural, or Conservation – by the State Land Use Commission, pursuant to Chapter 205, HRS. The property is in the State Land Use Urban District. The Proposed Action of use the project site for a park is consistent with intended uses for this Land Use District.

PART 4: DETERMINATION

Based on the information to this point, the Hawai‘i County Department of Parks and Recreation expects to determine that the proposed project will not significantly alter the environment. It is therefore anticipated that an Environmental Impact Statement is not warranted and that the Department will issue a Finding of No Significant Impact (FONSI). A final determination will be made by the Hawai‘i County Department of Parks and Recreation after consideration of comments on the Draft EA.

PART 5: FINDINGS AND REASONS

Chapter 11-200-12, Hawai‘i Administrative Rules, outlines those factors agencies must consider when determining whether an Action has significant effects:

1. *The proposed project will not involve an irrevocable commitment or loss or destruction of any natural or cultural resources.* No valuable natural or cultural resources would be committed or lost by the project, which would not involve significant historic sites or native species or habitat.
2. *The proposed project will not curtail the range of beneficial uses of the environment.* The Proposed Action expands and in no way curtails beneficial uses of the environment.
3. *The proposed project will not conflict with the State's long-term environmental policies*. The State’s long-term environmental policies are set forth in Chapter 344, HRS. The broad goals of this policy are to conserve natural resources and enhance the quality of life. The Proposed Action is minor, environmentally beneficial, and fulfills aspects of these policies calling for an improved social environment. It is thus consistent with all elements of the State’s long-term environmental policies.
4. *The proposed project will not substantially affect the economic or social welfare of the community or State.* The Proposed Action will benefit the social welfare of the community and State by allowing for use of the property for public benefit.
5. *The proposed project does not substantially affect public health in any detrimental way.* The Proposed Action will promote public health through provision of recreational opportunities.
6. *The proposed project will not involve substantial secondary impacts, such as population changes or effects on public facilities*. No secondary effects are expected to result from the Proposed Action, which would not induce in-migration or affect public facilities.
7. *The proposed project will not involve a substantial degradation of environmental quality*. The Proposed Action is minor and environmentally benign, and would thus not contribute to environmental degradation with adherence to Best Management Practices.
8. *The proposed project will not substantially affect any rare, threatened or endangered species of flora or fauna or habitat.* The project site supports overwhelmingly alien vegetation. Impacts to rare, threatened or endangered species of flora or fauna will not occur, with planned mitigation for timing of vegetation removal and hawk survey, if necessary.
9. *The proposed project is not one which is individually limited but cumulatively may have considerable effect upon the environment or involves a commitment for larger actions.* The Proposed Action is not related to other activities in the region in such a way as to produce adverse cumulative effects or involve a commitment for larger actions.

10. *The proposed project will not detrimentally affect air or water quality or ambient noise levels.* Slight increases in noise and effects to air quality will occur, but below levels that would require mitigation.
11. *The project does not affect nor would it likely to be damaged as a result of being located in an environmentally sensitive area such as a flood plain, tsunami zone, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal area.* Although the project site is in an area with volcanic and seismic risk, the entire Island of Hawaiʻi shares this risk, and the project is not imprudent to undertake.
12. *The project will not substantially affect scenic vistas and viewplanes identified in county or state plans or studies.* The Proposed Action would not adversely impact any scenic sites or viewplanes.
13. *The project will not require substantial energy consumption*. The Proposed Action involves only minor use of energy.

For the reasons above, the Proposed Action would not have any significant effect in the context of Chapter 343, Hawaiʻi Revised Statues and section 11-200-12 of the State Administrative Rules.

REFERENCES

Bird, I. 1974. *Six months in the Sandwich Islands*. Rutland, VT: Charles E. Tuttle Co.

Donn, J.M. 1901. 1901 Hawaii Territory Survey, Hawaii Map.

Gagne, W., and L. Cuddihy. 1990. "Vegetation," pp. 45-114 in W.L. Wagner, D.R. Herbst, and S.H. Sohmer, eds., *Manual of the Flowering Plants of Hawaiʻi.* 2 vols. Honolulu: University of Hawaiʻi Press.

Hawaiʻi County Planning Department. 2005. *The General Plan, County of Hawaiʻi*. Hilo.

Heliker, C. 1990. *Volcanic and Seismic Hazards on the Island of Hawaiʻi.* Washington: U.S. GPO.

Kamakau, S. 1961. *Ruling Chiefs of Hawaiʻi*. Honolulu: The Kamehameha Schools Press.

Kelly, M. 1981. "Archaeological and Historical Studies for the Alenaio Stream Flood Damage Reduction Study, Hilo Hawaiʻi. Report 1. Background History." Department of Anthropology, B.P. Bishop Museum, Honolulu. Prepared for U.S. Army Engineer District, Pacific Ocean.

Maly, K. 1996a. Appendix In: "Archaeological Assessment Study Hilo Judiciary Complex Project, Lands of Wainaku, Pōnohawai, Piʻihonua, and Waiākea, South Hilo District, Island of Hawaiʻi (TMK: 2-6-15:1, 2; 2-6-16:2; 2-4-49:18, 19; 2-2-15:33; 2-4-1:12)." Paul H. Rosendahl, Inc., Hilo. PHRI Report 1721-061496. Prepared for State of Hawaiʻi, Honolulu.

Maly, K. 1996b. *Historical Documentary Research and Oral History Interviews, Waiākea Cane Lots (12, 13, 17, 18, 19, 20 & 20A)*. Hilo: Kumu Pono Associates.

McEldowney, H. 1979. “Archaeological and Historical Literature Search and Research Design: Lava Flow Control Study, Hilo Hawai‘i.” Manuscript on file, Department of Land and Natural Resources-State Historic Preservation Division.

Pukui, M.K., Elbert, S.H., and E.T. Mookini. 1976. *Place Names of Hawaii*. Honolulu: University of Hawai‘i Press.

Narimatsu, C. 2010. *Curtis Narimatsu Says: March 11, 2010*. Online at www.bigislandchronicle.com.

U.S. Dept. of Commerce, Economics and Statistics Administration, Bureau of the Census, 2010, http://factfinder2.census.gov/.

U.S. Soil Conservation Service. 1973. *Soil Survey of Island of Hawai‘i, State of Hawai‘i.* Washington: U.S.D.A. Soil Conservation Service.

University of Hawai‘i at Hilo, Dept. of Geography. 1998. *Atlas of Hawai‘i.* 3rd ed. Honolulu: University of Hawai‘i Press.

U.S. Fish and Wildlife Service (USFWS). 2012. *USFWS Threatened and Endangered Species System (TESS).* Washington: GPO. http://ecos.fws.gov/tess_public/StartTESS.do

U.S. Geological Survey (USGS). 2000. *Seismic Hazard Maps for Hawaii*. By F.W. Klein, A.D. Frankel, C.S. Mueller, R.L. Wesson and P.G. Okubo.

Wolfe, E.W., and J. Morris. 1996. *Geologic Map of the Island of Hawai‘i.* USGS Misc. Investigations Series Map i-2524-A. Washington, D.C.: U.S. Geological Survey.

Kaumana Lani County Park

Draft Environmental Assessment

APPENDIX 1a
Comments in Response to Early Consultation

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NEIL ABERCROMBIE
GOVERNOR OF HAWAII

LORETTA J. FUDDY, A.C.S.W., M.P.H.
DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. BOX 3378
HONOLULU, HI 96801-3378

In reply, please refer to:
File: 12-020

February 9, 2012

Mr. Ron Terry, Principal
Geometrician Associates, LLC
PO Box 396
Hilo, Hawai'I 96721

Dear Mr. Terry;

SUBJECT: Early Consultation for Environmental Assessment for Kaumanu Lani County Park Development, Hilo, Island of Hawai'i. TMK (3rd.) 2-5-060:007

Thank you for allowing us to review and comment on the proposed document. We would like a draft copy of the document once it is developed for our internal review. The document will be routed to the various branches of the Environmental Health Administration as required. We have no comments at this time, but reserve the right to future comments. We strongly recommend that you review all of the Standard Comments on our website: www.hawaii.gov/health/environmental/env-planning/landuse/landuse.html. Any comments specifically applicable to this application should be adhered to.

The same website also features a Healthy Community Design Smart Growth Checklist (Checklist). The Hawaii State Department of Health, Built Environment Working Group, recommends that State and county planning departments, developers, planners, engineers and other interested parties apply the healthy built environment principles in the Checklist whenever they plan or review new developments or redevelopments projects. We also ask you to share this list with others to increase community awareness on healthy community design.

If there are any questions about these comments please contact the Environmental Planning Office at 586-4337 or laura.mcintyre@doh.hawaii.gov.

Sincerely,

Laura McIntyre AICP
Manager
Environmental Planning Office

Ron,

Thank you for taking time to talk with me regarding the proposed development of Laumana Lani Park. My wife and I owned two lots that abut the western edge of the proposed park. Our home is located on one of the lots and is located approximately 50 feet from the park property. My wife's brothers and sister own the other parcels along the western edge of the County property.

While we enjoy the privacy and tree cover provided by this currently undeveloped property we have always recognized that one day it would likely be developed for its intended park use. Because any development on this property will have a significant impact on our home we would appreciate the opportunity to provide input on the ultimate park development.

The subdivision in which our property is located is very old and was not developed to current County standards. As a result the basic infrastructure in this subdivision is inadequate. Furthermore, the maintenance of much of this infrastructure is the private responsibility of the property owners. Three important issues that are relevant to the proposed development are poor drainage, lack of park facilities, and access. The storm drain system built in this adjacent subdivision does not have capacity to handle existing occasionally heavy demand. Therefore it will be important that the development of the park not increase any existing drainage issues. While the proposed park development has the potential of addressing the under served park needs of our neighborhood the lack of pedestrian or vehicle access from our subdivision will limit the ability of this development to address these park and recreation needs.

This site does have a number of fairly mature trees and if possible we would like to see some of them preserved. Also we understand that there was a WW 2 POW camp located on our property. We are not sure if it extended on to the park property and whether there may be any remaining artifacts.

We understand that the County has very limited funds for development. One issue that we would be very concerned about is the potential grading of the site without funds already in place to plant the turf. From our perspective that would be the worst possible outcome since we would lose privacy and the existing tree cover only to have a vacant lot that is likely to become overgrown. It appears that has already happened on a portion of this property.

Finally, due to the lack of access to this park from our subdivision we are concern that our property will become the shortcut to the park for the children in our neighborhood. We are open to exploring options that may address that issue in a constructive way.

Thanks

Paulo

paulbrotzman@sbcglobal.net

William P. Kenoi
Mayor

Harry S. Kubojiri
Police Chief

Paul K. Ferreira
Deputy Police Chief

County of Hawai'i
POLICE DEPARTMENT
349 Kapiolani Street • Hilo, Hawai'i 96720-3998
(808) 935-3311 • Fax (808) 961-8865

February 13, 2012

Mr. Ron Terry, Principal
Geometrician Associates
P. O. Box 396
Hilo, HI 96721

Dear Mr. Terry:

SUBJECT: EARLY CONSULTATION FOR ENVIRONMENTAL ASSESSMENT FOR KAUMANA LANI COUNTY PARK DEVELOPMENT, HILO, HAWAII
TMK: (3RD) 2-5-060:007

Staff, upon reviewing the provided documents and visiting the proposed project, has some concerns.

The proposed park is within a residential area surrounded on two sides with homes. The building of a baseball field, etc., on this site, will affect the quality of life of residents in the area.

Hokulani Street is a roadway with no sidewalks. The increase in pedestrian and vehicular traffic, especially in the area closest to Kaumana Drive where the roadway is narrow and there is no shoulder, will pose a safety issue for pedestrians. The increase in traffic at the intersection of Kaumana Drive and Hokulani Street may be an issue once this park is built, which may require the installation of sidewalks and traffic lights.

Thank you for allowing us the opportunity to comment; and if you have any questions, please contact Captain Robert Wagner, Commander of South Hilo Patrol, at 961-2214.

Sincerely,

HENRY J. TAVARES, JR.
ASSISTANT POLICE CHIEF
AREA I OPERATIONS BUREAU

RW:lli
120071

William P. Kenoi
Mayor

Darren J. Rosario
Fire Chief

Renwick J. Victorino
Deputy Fire Chief

County of Hawai'i
HAWAI'I FIRE DEPARTMENT
25 Aupuni Street • Room 2501 • Hilo, Hawai'i 96720
(808) 932-2900 • Fax (808) 932-2928

February 22, 2012

Mr. Ron Terry
Geometrician Associates, LLC
PO Box 396
Hilo, Hawai'i 96721

RE: EARLY CONSULTATION FOR ENVIRONMENTAL ASSESSMENT FOR KAUMANA LANI COUNTY PARK DEVELOPMENT, HILO
TMK: (3RD.) 2-5-060:007

In regards to the above-mentioned Early Consultation for Environmental Assessment, we have no further comments.

DARREN J. ROSARIO
Fire Chief

RP:lpc

William P. Kenoi
Mayor

BJ Leithead Todd
Director

Margaret K. Masunaga
Deputy

West Hawai'i Office
74-5044 Ane Keohokalole Hwy
Kailua-Kona, Hawai'i 96740
Phone (808) 323-4770
Fax (808) 327-3563

County of Hawai'i

PLANNING DEPARTMENT

East Hawai'i Office
101 Pauahi Street, Suite 3
Hilo, Hawai'i 96720
Phone (808) 961-8288
Fax (808) 961-8742

March 6, 2012

Mr. Ron Terry
Geometrician Associates
P.O. Box 396
Hilo, HI 96721

Dear Mr. Terry:

SUBJECT: Early Consultation for Draft Environmental Assessment
Project: Kaumana Lani County Park Development
TMK: (3) 2-5-006:007; Ponahawai, South Hilo, Hawai'i

Thank you for your letter dated February 7, 2012 requesting comments from this office regarding the preparation of a Draft Environmental Assessment (DEA). The County Department of Parks and Recreation has been charged with developing a park on the subject property south of Hokulani Street in the Kaumana neighborhood of Hilo. The park will contain some or all of the following recreational facilities: a baseball field, a basketball court, a volleyball court, an open air pavilion, and restroom with a septic system.

The subject parcel consists of 4.701 acres. The subject property is zoned Single-Family Residential (RS-15) by the County of Hawai'i and situated within the State Land Use Urban district. In addition, according to the County of Hawai'i General Plan 2005 (amended December 2006), the subject property is designated as Low Density Urban by the Land Use Pattern Allocation Guide. The parcel is not located within the Special Management Area (SMA).

Several goals and policies of the County of Hawai'i General Plan 2005 (amended December 2006) related to recreation are relevant to this EA for development of the Kaumana Lani County Park. In addition, this project implements one of the courses of action in the General Plan; Course of Action 12.5.2.2 (d) states that "*Community and/or neighborhood recreational areas should be provided in areas such as Piihonua, upper Ponahawai, Kaumanan-Ainako, upper Kaumana, Haihai, and upper Waiakea.*"

We have no further comments to offer, at this time. However, please keep us informed and provide our department with a copy of the Draft Environmental Assessment for our review.

If you have any questions or if you need further assistance, please feel free to contact Bethany Morrison of this office at 961-8138.

Sincerely,

BJ LEITHEAD TODD
Planning Director

BJM:bjm
P:\wpwin60\Bethany\EA-EIS Review\preconsultdraftea Kaumana Lani Park.doc

Mead.

Hokulani Neighborhood Meeting
Sunday, April 1st 2012

NAME	Address	Telephone/cell
TONY BLASQUEZ	9 WAWAI LOOP	916-276-5640
Wendell Lee	7 Wawai Loop	934-0303
CLAYTON HANNA	17-108 LEHUE PL	982-3997
Donald Ikeda	966 Kaumana Dr	987-4208
JAMES KOMATA	101 PAUAHI ST. STE 6	936-8681
Rodney Sunaoka	215 C Hokulani St.	960-5080
Doreen Tanihiro	185 Hokulani St	969-3438
Dale Furuya	110 Hokulani Place	969-7395
J Yoshimoto	1097 PUKANA ST.	959-2759
Jean Alves	79 Wawai Lp	938-9283
Ron Terry	10 Hina St	969-7090
Russell Montgomery	241A W Naauao St.	971 6756
Sandy Uemura	54 Hokulani St	961-3937
TODD PATARMY	HPD	938-7638
BRANDON GONZALEZ	DPW	961-8321
Rob Tavares	111 Hokulani place	961-0840
BILLY KENOI	PO BOX 726 HILO, HI	961-8211
Calvin + Marlene Mashiba	165-B Hokulani St., Hilo	961-6117
John + Cori Balberde (johnbalberde@gmail.com)	215-A Hokulani St. Hilo	969-3850
Sheila Padasdao (spadasdao@yahoo.com)	113 A Hokulani Pl. Hilo	935-3252
Ken Uemura	54 Hokulani st.	961-3937

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Kaumana Lani County Park

Draft Environmental Assessment

APPENDIX 2
Archaeological Report

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SCS Project Number 1257-2

ARCHAEOLOGICAL INVENTORY SURVEY OF A 4.7-ACRE PARCEL IN KAUMANA, PONAHAWAI AHUPUA‘A, SOUTH HILO DISTRICT, HAWAI‘I ISLAND, HAWAI‘I [TMK: (3) 2-5-60:007]

Prepared By:
Glenn G. Escott, M.A.

August 2012
Final

Prepared for:
Hawai‘i County Department of Recreation
101 Pauahi Street, Suite 6
Hilo, Hawai‘i 96720

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ABSTRACT

At the request of the Hawai‘i County Department of Recreation, Scientific Consultant Services, Inc. (SCS) conducted an archaeological inventory survey of a 4.7-acre parcel [TMK: (3)-2-5-60:007] located in Kaumana, in the *ahupua‘a* of Ponahawai, South Hilo District, Island of Hawai‘i. The project area is situated approximately three miles southwest of Hilo Bay and is bounded by Hokulani Place to the south, Hokulani Street to the east, and by undeveloped land to the north and west. The parcel is being considered for the location of a county park.

A pedestrian survey was conducted on January 20, 2012 by Glenn Escott M.A. A series of east/west traverses spaced ten meters apart area were walked across the entire project area. Ground visibility was good as most of the project area has been bulldozed and cleared in the past.

Two concrete foundations were located on the current project area parcel (SIHP 50-10-35-29235). This report contains background information outlining the project area environmental and cultural contexts, a presentation of previous archaeological work near the study area, an assessment of expected archaeological patterns, an explanation of project methods, and documentation of the concrete foundations located within the current 4.7-acre project area.

INTRODUCTION

PROJECT AREA DESCRIPTION

At the request of the Hawai‘i County Department of Recreation, Scientific Consultant Services, Inc. (SCS) conducted an archaeological inventory survey of a 4.7-acre parcel [TMK: (3)-2-5-60:007] located in Kaumana, in the *ahupua‘a* of Ponahawai, South Hilo District, Island of Hawai‘i (Figures 1 through 4). The project area is situated approximately three miles southwest of Hilo Bay and is bounded by Hokulani Place to the south, Hokulani Street to the east, and by undeveloped land to the north and west. The parcel is being considered for the location of a county park.

METHODS

The archaeological inventory survey was undertaken in accordance with draft Hawai‘i Administrative Rules 13§13-275 and was performed in compliance with the Rules Governing Minimal Standards for Archaeological Inventory Surveys and Reports contained in draft Hawai‘i Administrative Rules 13§13-276. Prior to fieldwork, geological maps, aerial photos, historical maps, historical documents, and previous archaeological reports were studied.

Mr. Paulo Brotzman and Mr. Albert Sampaia were interviewed about the project area parcel. Paulo is related to the Chong family who owns the land adjacent to, and west of, the project area. He owns property in the neighborhood where the proposed park will be constructed. Albert lives and grew up just across Hokulani Place, south of the project area. Both provided information concerning the history and buildings of Camp POW located on the Chong property and along the western boundary of the project area.

A pedestrian survey was conducted of the project area on January 20, 2012 by Glenn Escott M.A. A series of east/west traverses spaced ten meters apart area were walked across the entire project area. Ground visibility was good as most of the project area has been bulldozed and cleared in the past. Two concrete foundations were located on the current project area parcel.

ENVIRONMENTAL SETTING

The current project area consists of a single undeveloped 4.7-acre parcel situated on gently sloping to level land at 770 to 790 feet (235 to 241m) above mean sea level (amsl).

The project area is on a single Mauna Loa lava flow dated between 3,000 and 5,000 years before present (ybp) (Wolfe and Morris 1996). Soil in the project area is Keaukaha series extremely rocky muck with six to twenty percent slopes (Sato 1973:27).

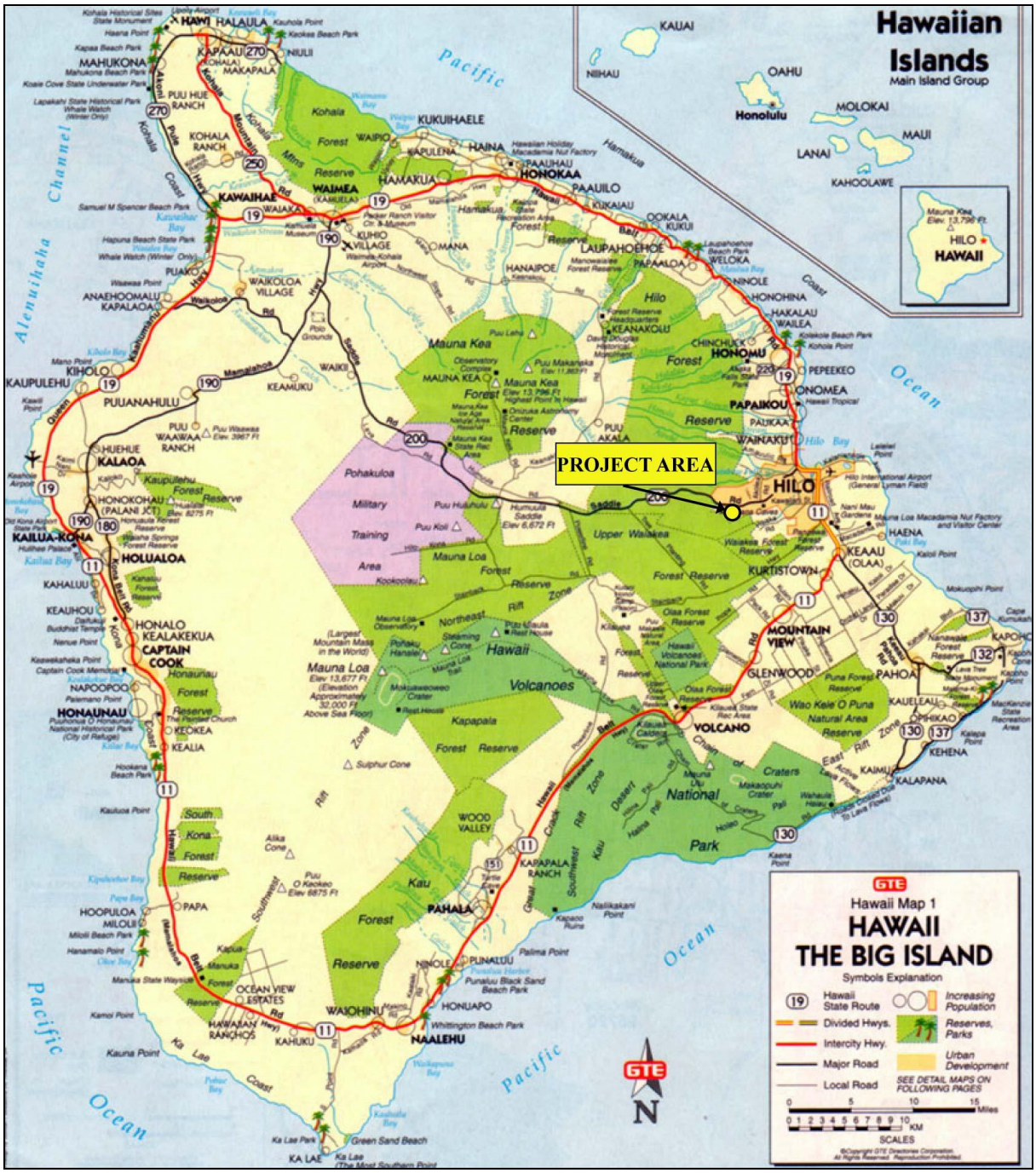

Figure 1: Project Area Location on Hawai‘i Island Map.

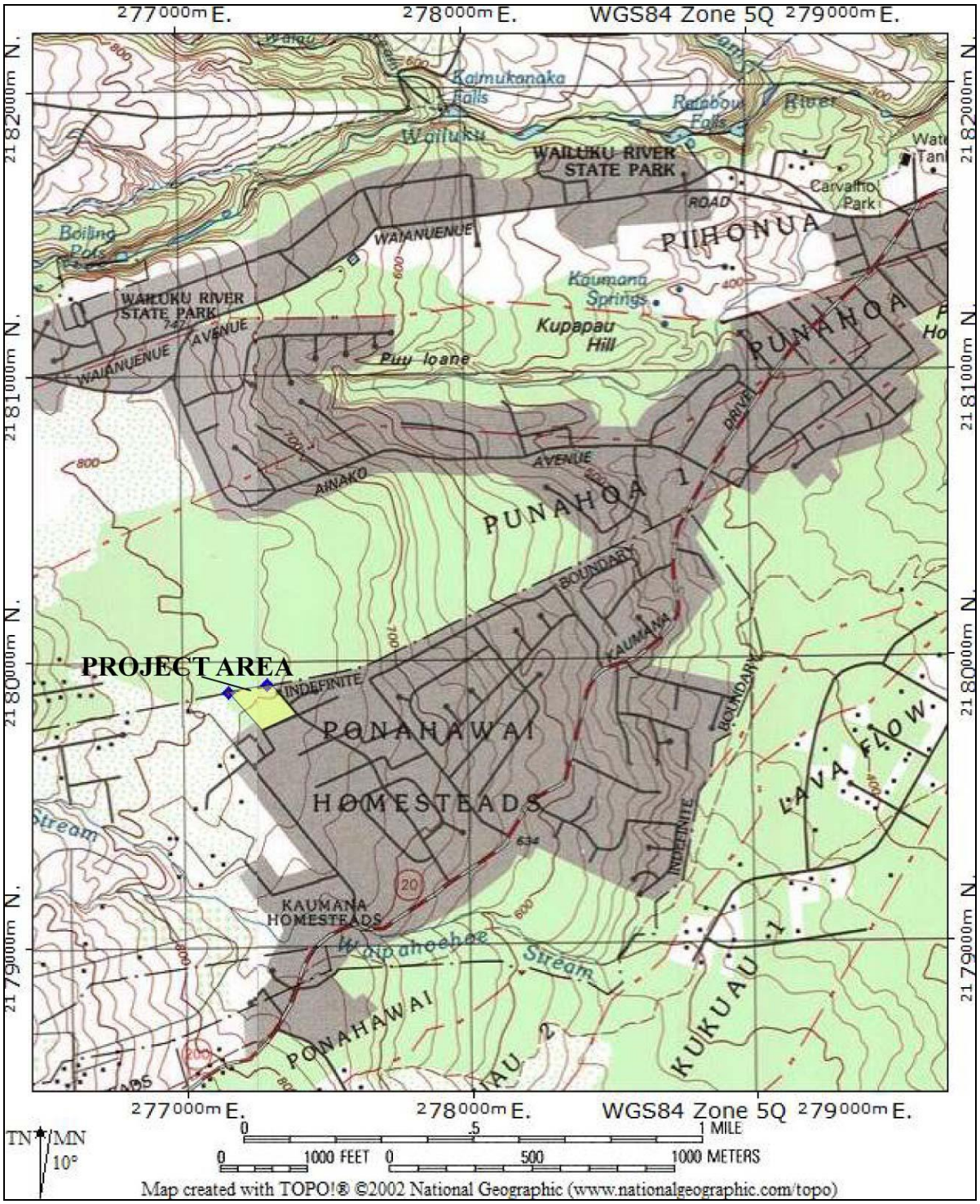

Figure 2: Project Area Location on USGS Map (Hilo Quad, 2002).

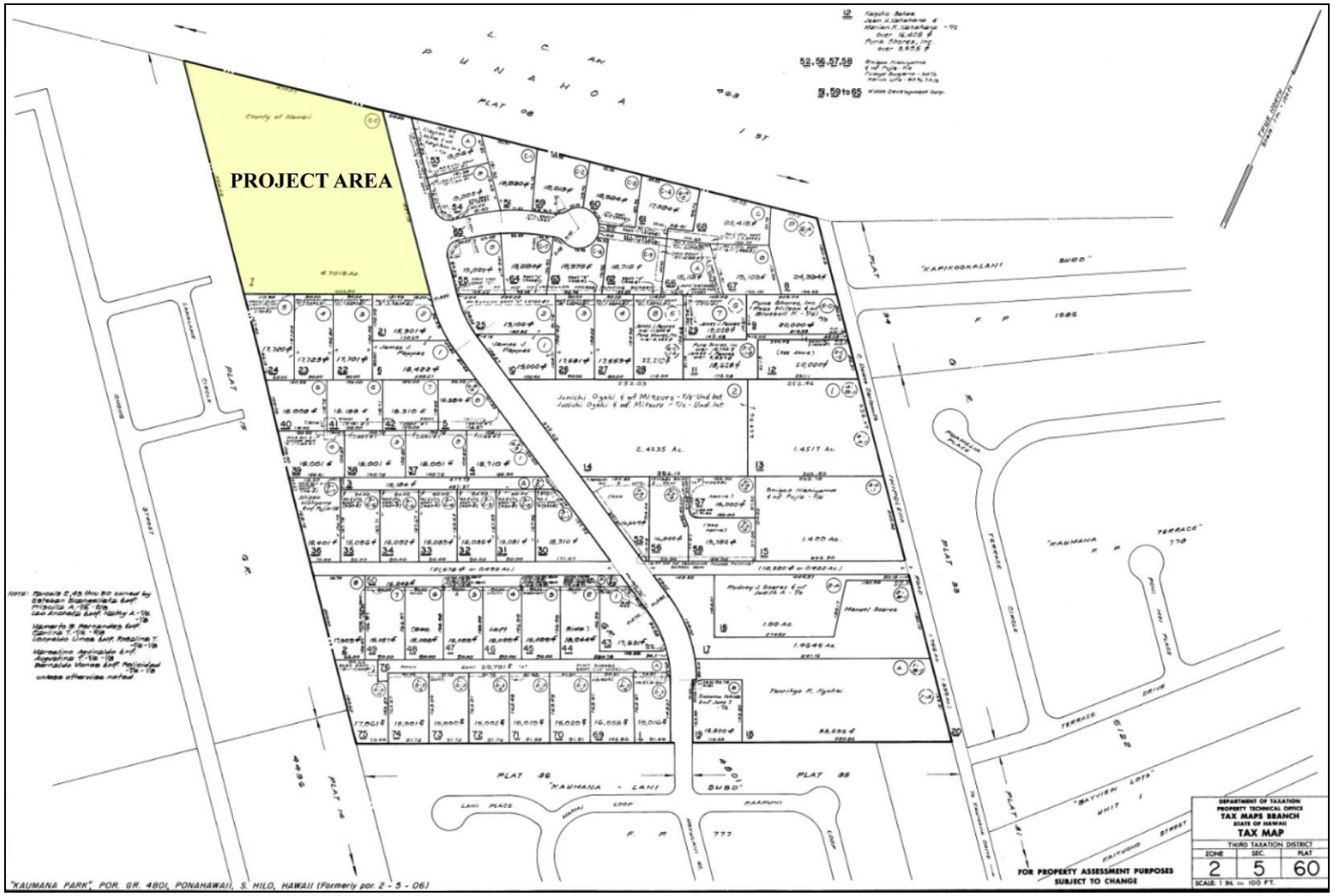

Figure 3: Location of Project area Located on TMK (3) 2-5-60 Map.

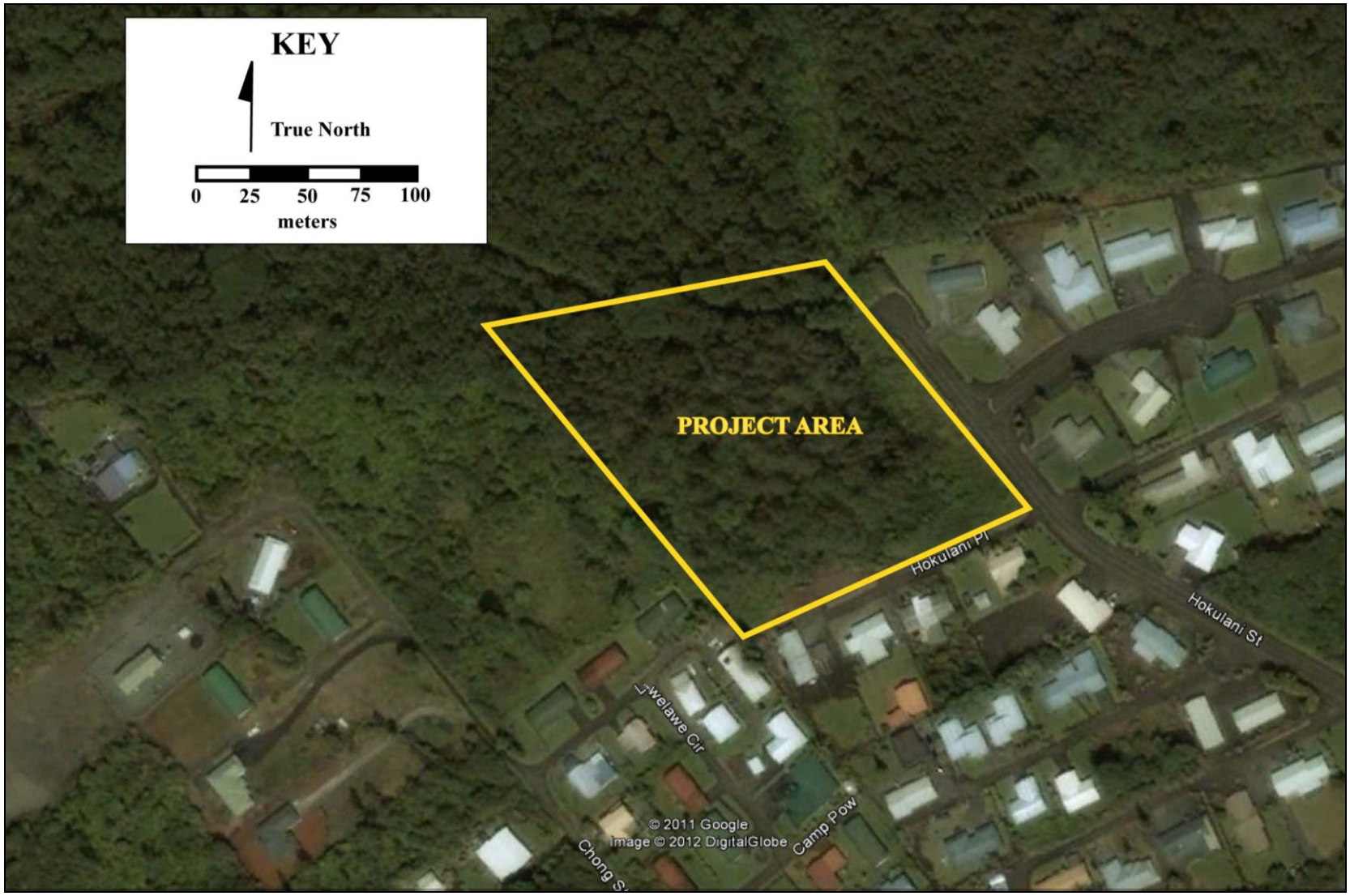

Figure 4: Project Area Located on Aerial Photograph (Google Earth, 2011).

The project area lands are in Ponahawai Ahupuaʻa, in a land-use area historically documented as homestead lands (Donn 1991). Rainfall in the project area is high, ranging between 150 and 200 inches per year (Kelly *et al*. 1981). Natural drainage in the area runs from northwest to southeast. Plants in the project are dominated by introduced species such as *waivi* (*Psidium cattleianum*), common guava (*Psidium guajava*), and ironwood (*Casuarina sp.*)

HISTORICAL AND CULTURAL CONTEXTS

Hilo was, by most estimates, one of the first settlements on the Island of Hawaiʻi and was settled between AD 300 and 600. The rich marine resources of Hilo Bay and the gently sloping forests of Mauna Loa and Mauna Kea provided abundant resources. Fresh water was available from the Wailoa and Wailuku rivers and smaller streams such as Waiākea, Waiolama, Pukihae, and ʻAlenaio. Waiākea Stream flows south of the present study area. The *ahupuaʻa* of Waiākea is large – approximately 95,000 acres from the coastline to the slopes of Mauna Kea – and was regarded as a region of abundant natural resources and numerous fishponds.

PRE-CONTACT ACCOUNTS OF HILO

The earliest account of Hilo appears in `Umi-a-Liloa's (1600–1620) conquest of the Island of Hawai`i, which establishes Hilo as a royal center by the sixteenth century. In the account, `Umi-a-Liloa began his conquest of the Island of Hawai`i by defeating chief Kulukulu`ā, who lived in Waiākea, and the other chiefs of Hilo (Kamakau 1992:16–17). `Umi-a-Liloa's second son, Keawe-nui-a-ʻUmi, ruled Hamākua, Hilo, and Puna from his residence at Hilo (*ibid*: 34). It was from Hilo that he waged war on the Kona chiefs and unified the island. Keawe-nui-a-ʻUmi's descendants single handedly continued rule for many generations from Hilo.

After the death of Keawe-nui-a-ʻUmi the kingdom was divided into three parts and was established under warring chiefs; Hilo was ruled by Kumalae-nui-pu`awa-lau and his son Makua *(ibid*: 45). It was during the period of time that Kamehameha I was born. Kalani`ōpu`u's grandson, Keoua Kuahu`ula and nephew Kamehameha vied for control over the six chiefdoms constituting the island kingdom and Keoua conquered Hilo chief Keawe-mau-hili and harvested the benefits for a short time only to be killed by Kamehameha late in 1791. Kamehameha's son Liholiho was born in Hilo in November 1797 (Kamakau 1992:22). Waiākea was inherited by Lihiliho after Kamehameha's death.

The *‘ili kūpono* of Pi‘opi‘o and its royal fishpond were given to his favorite wife, Ka‘ahumanu (Figure 5).

TRADITIONAL SETTLEMENT PATTERNS, SUBSISTENCE, AND LAND-USE

Historical accounts and archaeological/cultural studies pertaining to the project area region (Bingham 1969; Bird 1974; Ellis 1963; Handy and Handy 1972; Kelly *et al*. 1981; Maly 1996; McEldowney 1979) provide a wealth of information on traditional residence patterns, land-use, and subsistence horticulture of the area. It is widely held that these historical accounts of residence patterns, land-use, and subsistence horticulture indicative of traditional practices developed long before contact with Europeans (McEldowney 1979). These are synthesized below in order to explain the types of cultural resources possibly located within the current project area.

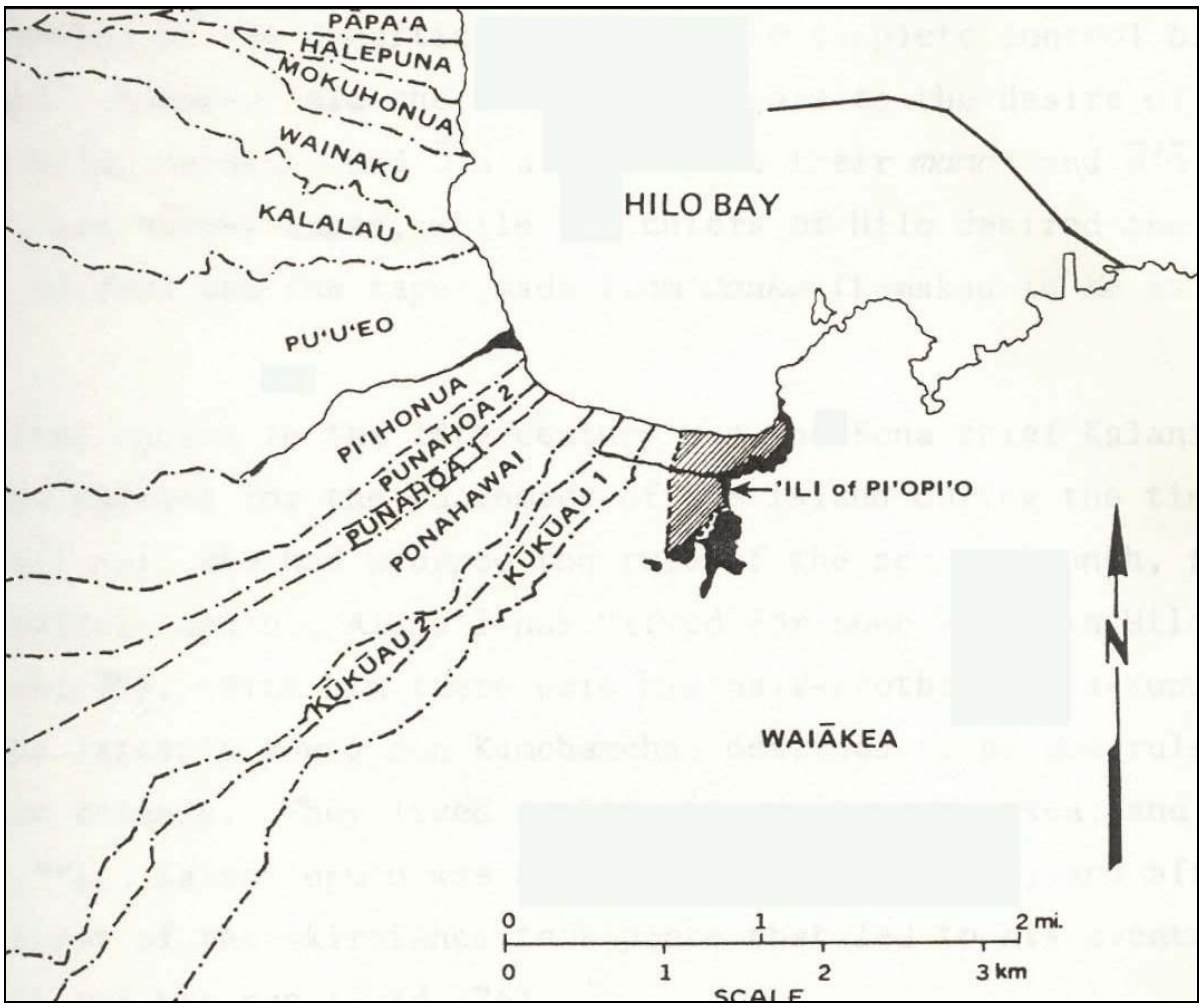

Figure 5: Kamehameha's ‘*Iili Kūpono* Lands of Pi‘opi‘o in the *Ahupua‘a* of Waiākea (Kelly *et al*. 1981).

Early accounts of Hilo portray it as divided into several distinct environmental regions. From the coast to a distance of five or six miles scattered subsistence agriculture was evident, followed by a region of tall fern and bracken, flanked at higher elevations by a forest region between 10 and 20 miles wide, beyond which was an expanse of grass and lava (Ellis 1969:403). The American Missionary C.S. Stewart wrote, "the first four miles of the country is open and uneven, and beautifully sprinkled with clumps, groves, and single trees of the bread-fruit, pandanus, and candle tree (Stewart 1970:361-363). The majority of Waiākea's estimated 2,000 inhabitants (in 1825) lived within this coastal region (Ellis 1969: 253). Taro, plantains, bananas, coconuts, sweet potatoes, and breadfruit were grown individually or in small garden plots. Fish, pig, dog, and birds were also raised and captured for consumption.

The present study area is situated along the upper reaches of the open coastal region and the lower reaches of the tall fern and bracken zone. It is located in McEldowney's upland agricultural zone (See Previous Archaeology section below) consisting of "scattered huts" amidst "garden "plots" created through "shifting agriculture" (McEldowney 1979:18-19). Wood, such as *ohi'a* and *koa* for house construction, canoe building, and fires was obtained from this upland agricultural zone, and from the dense forests above (Ellis 1963:236). *Hala* for thatching was also known to be plentiful along the lava flows of eastern Waiākea (Ellis 1963, cited in Kelly *et al*. 1981:20). Of particular interest is a description of bird snaring and mention of banana growing in the area of the present study (Maly 1996:6-8).

THE MĀHELE OF 1848 AND LAND COMMISSION AWARDS

The *ahupua'a* of Ponahawai appears to have been given by Kamehameha to Keawe-a-Heulu, one of his trusted warriors (Kelly et al. 1981:40). At the start of the Māhele, Ponahawai was given up by Keawe-a-Heulu's nephew Kinimaka. The *ahupua'a* became Crown Lands during the Māhele and in the following years numerous, small Land Grants were awarded within the *ahupua'a*. No Land Commission awards or Land Grants were made within the project area.

CHANGING RESIDENTIAL AND LAND-USE PATTERNS (1845-1865)

Between 1845 and 1865 traditional land-use and residential patterns underwent a change. In particular, the regular use of Hilo Bay by foreign vessels, the whaling industry, the establishment of missions in the Hilo area, the introduction of the sandalwood trade, the legalization of private land ownership, the introduction of cattle

ranching, and the introduction of sugar cane cultivation all brought about changes in settlement patterns and long-established land-use patterns (Kelly *et al*. 1981). Hilo became the center of population and settlements in outlying regions declined or disappeared. While food was still grown for consumption, greater areas of land were continually given over to the specialized cultivation and processing of commercial foodstuffs for export. Sugar cane plantations and industrial facilities were established in areas that were once upland agricultural areas and coastal settlements, respectively.

MODERN LAND-USE, PONAHAWAI HOMESTEADS, AND WWII

In 1894, the government opened the Ponahawai Homestead Lots in the area of the current project. Road improvements over the next six years gave access to more lots and spurred development in the area. In 1901 Antone Carvalho bought 110-acres (L.G. 4496) bordering the west edge of the project area. Carvalho sold the property to Charles Chong who subdivided it into house lots.

During WWII, the Army's 27th Infantry division was housed and trained on the property (Narimatsu 2010). Later, the Marines were stationed there and Japanese prisoners of war were confined there. The camp became known as Camp POW. After the war, Mr. Chong converted the camp buildings into rental properties (Paulo Brotzman interview). They were finally demolished in the 1980s due to safety concerns. The two concrete foundations located on the project area parcel, just east of Camp POW property, are the remains of two of the camps buildings (Albert Sampaia interview). The foundations were not bulldozed, as were those on the Chong property to the west.

PREVIOUS ARCHAEOLOGICAL INVESTIGATIONS

Numerous archaeological investigations have been carried out in the Hilo area and within the *ahupua'a* of Waiākea over the last 95 years. Many of the research projects are located adjacent to or in the immediate vicinity of the current study area. Table 1 below summarizes major findings and Figure 9 shows the location of archaeological investigations near the current project area.

Table 1: Previous Archaeological Research.

Reference	Location	Description & Results
Thrum 1907	Waiākea *Ahupua'a heiau* sites	List of *heiau* in Waiākea — none located near present project area.

Reference	Location	Description & Results
Thrum 1908	Waiākea *Ahupua'a*	List and description of *heiau* in Waiākea —none located near present project area.
Hudson 1932	East Hawaii Island	Detailed description of various sites in the Hilo area.
McEldowney 1979	Hilo Bay area	Zonal Characteristics—Land – use study
Kelly, Nakamura, and Barrère 1981	Hilo Bay area	History of Hilo Bay
Jensen 1991	AIS in Ponahawai *Ahupua'a* TMK: (3) 2-3-044:09	Site 14946, an early historic house and sugar cane site. Site 14947, the Hilo Boarding School and Old Mission Ditch
Smith 1991	Waiākea *Ahupua'a*, South Hilo, Hawaii Island TMK: 3-2-4-01:7	List and description of sites on the 4000+BP and 1500-750BP lava flows. Inventory survey recommended.
Stokes and Dye 1991	Hawaii Island	List and description of heiau of Hawaii Island
Smith 1992	Waiākea Cane Lots, Waiākea *Ahupua'a*, South Hilo, Hawaii Island TMK: 3-2-4-56:1	Numerous cane field features including walls, clearing mounds, a large rectangular enclosure, and c-shaped enclosures.
Moniz 1992	Waiākea *Ahupua'a*, Hilo Hawaii	A listing of 1979-1992 inventory survey results within Waiākea *Ahupua'a* that document walls, mounds, platforms, and faced terraces.
Hunt 1992	Lands of Waiākea, Kukuau 1 & 2, and Ponahawai *ahupua'a*, South Hilo District, Hawaii (Puainako Street Extension Project)	Interim inventory survey report listing 31 cane field features including walls, clearing mounds, platforms, and faced terraces.
Spear 1993	Pi'ihonua *Ahupua'a*, South Hilo TMK: 2-3-32:4	Inventory survey report of a 5-acre parcel that documents an historic oven and a trash dump. No further work recommended.
Borthwick, Collins, Folk, and Hammatt 1993	Waiākea *Ahupua'a* TMK: 2-4-01:7 and 41	Inventory survey of 163 acres of UH property along and east of Komohana Street. Documents four historic sites associated with sugar cane agriculture. No further work recommended.
Hunt and McDermott	Lands of Waiākea, Kukuau 1	Inventory survey final report

Reference	Location	Description & Results
1994	& 2, and Ponahawai *ahupua'a*, South Hilo District, Hawaii (Puainako Street Extension Project)	(completion of Hunt 1992) documenting 13 historical sites associated with sugar cane agriculture.
Maly, Walker, and Rosendahl 1994	Lands of Waiākea, South Hilo TMK: 2-4-57:01	Inventory survey of 4.5 acres in the Waiākea Cane Lots documenting four sites associated with historical sugar cane agriculture. Forty-seven features were recorded including walls, clearing mounds, and terraces. One radiocarbon date and recovered artifacts suggest prehistoric land-use in the project area. Data recovery recommended.
Spear 1995	Lands of Waiākea, South Hilo TMK: 2-4-57:01	Data recovery report of Maly *et al.* (1994) parcel documenting historic sugar cane agricultural features and a few temporary habitations. No further archaeological work recommended.
Maly 1996	Waiākea Cane Lots (12, 13, 17, 18, 19, 20 & 20-A, District of South Hilo, Island of Hawaii	Oral interviews and archival research pertaining to Waiākea Cane Lots. Provides background of pre-Contact land-uses in the area and description of sugar cane agricultural features, their construction, and uses.
Robins and Spear 1996	Lands of Waiākea, Kukua 1 & 2, and Ponahawai, South Hilo District, Island of Hawaii (Puainako Street Realignment/Extension Project)	Inventory survey of proposed realignment of Puainako Street Extension Corridor documenting 30 new features at 3 sites (Hunt and McDermott 1994), and one new site containing 16 features. Sites and features are associated with historic sugar cane agriculture.
Eblé, Donham, and Pantaleo 1997	Lands of Waiākea, Kukuau 1 & 2, and Ponahawai *ahupua'a*, South Hilo District,	Supplemental testing of features (six sites) documented in Hunt and McDermott

Reference	Location	Description & Results
	Hawaii (Puainako Street Extension Project)	(1994). Features associated with historic sugar cane agriculture. Recommended preservation of several sites within the project area.
Spear 1998	Lands of Waiākea, Kukua 1 & 2, and Ponahawai, South Hilo District, Island of Hawaii (Puainako Street Realignment/Extension Project)	Reconnaissance-level survey of proposed realignment of Puainako Street Extension Corridor documenting 27 new features associated with historical sugar cane agriculture.
McGerty and Spear 1999	Lands of Waiākea, Kukua 1 & 2, and Ponahawai, South Hilo District, Island of Hawaii (Puainako Street Realignment/Extension Project)	Inventory survey of Spear (1998) parcel documenting 17 features: 15 historic sugar cane agriculture features and two features associated with a modern pig farm. All features were added to site 18921. Data Recovery recommended.
Dega and Benson 1999	Lands of Waiākea, Kukua 1 & 2, and Ponahawai, South Hilo District, Island of Hawaii (Puainako Street Realignment/Extension Project)	Reconnaissance-level survey of proposed realignment of Puainako Street Extension Corridor documenting eight sites containing 18 features including 12 clearing mounds, two platforms, two walls, a rock alignment, and an *'auwai*. All but the *'auwai* were associated with historic sugar cane cultivation. The *'auwai* was described as a pre-Contact feature likely also utilized in historic cane field agriculture.
Dega 2000	Lands of Waiākea, Kukua 1 & 2, and Ponahawai, South Hilo District, Island of Hawaii (Puainako Street Realignment/Extension Project)	Inventory survey of Dega and Benson (1999) parcel documenting eight new features (at Site 18921) associated with sugar cane agriculture.

Reference	Location	Description & Results
Dega and Spear 2000	Lands of Waiākea, Kukua 1 & 2, and Ponahawai, South Hilo District, Island of Hawaii (Puainako Street Realignment/Extension Project)	Preservation plan for sites 18914, 18915, 18917 and a boulder path/alignment recorded by Eblé *et al.* (1997).
Bush, McDermott, and Hammatt 2000	Lands of Waiākea, South Hilo TMK: 2-4-01: 122, South Hilo, Hawai‘i Island (USDA Pacific Basin Agricultural Center Project)	Inventory survey of 20 acres along western edge of Komohana Street, and adjacent to east-central portion of current project area. Documents one skylight (site 22080) containing a single human femur. Preservation recommended.
McDermott and Hammatt 2001	Lands of Waiākea, South Hilo TMK: 2-4-01: 122, South Hilo, Hawai‘i Island (USDA Pacific Basin Agricultural Center Project)	Inventory survey of 10 acres adjacent (west) to Bush *et al.* (2000) documenting two historic sites (one feature each), including a modified outcrop and a stone causeway. No further work recommended.
Haun 2002	Archaeological Field Inspection of eight acres in Ponahawai *Ahupua‘a* TMK: (3) 2-3-037:001	Historic sugar cane agricultural features and house site
Escott 2004	AIS of 258 Acres, Waiākea *Ahupua‘a* [TMK: 3-2-4-01:122].	Sixteen sites associated with sugar cane agriculture, ranching, and WWII training

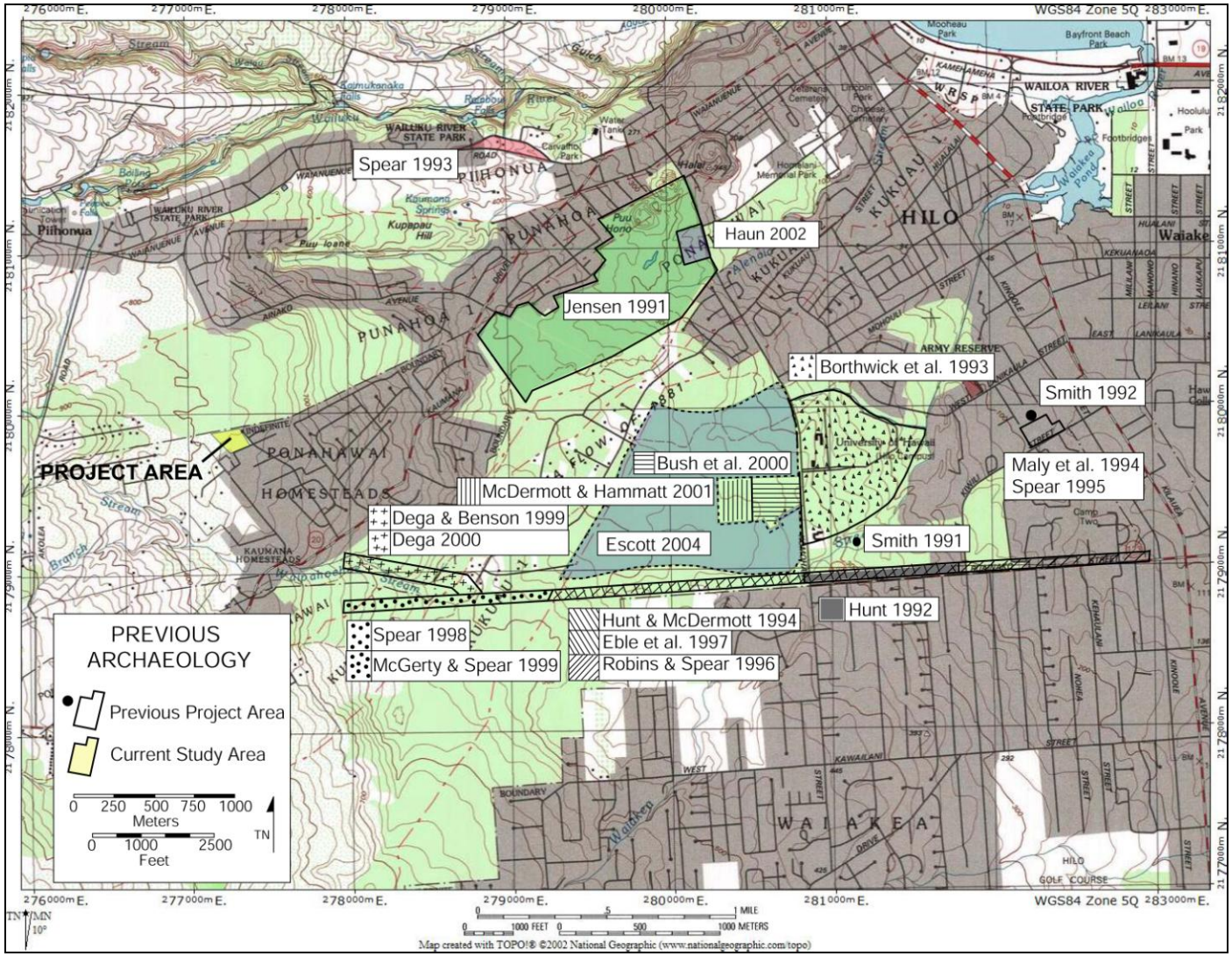

Figure 6: Map of Previous Archaeology (Hilo USGS Quad, 1995).

REGIONAL ARCHAEOLOGICAL STUDIES

McEldowney (1979) provides an overview of changing land-use patterns in the Hilo area based on early historic accounts. She proposes that Hawaiians utilized land in accordance to five elevation zones (1979:14). Land-use zones are classified as (I) coastal, (II) upland agricultural, (III) lower forest, (IV) rainforest, and (V) sub alpine, or montane. The inhabitants of Ponahawai Ahupuaʻa had access to resources in all but the rainforest and subalpine zones.

The present project is situated in the upland agricultural zone (50 to 1,500 feet) described as unwooded grasslands and extensive dryland cultivation plots. McEldowney suggests this region was likely deforested prior to European contact through shifting agricultural practices such as swiddening. Site types consist of scattered houses adjacent to garden and arboreal plots on older *pāhoehoe* and *ʻaʻā* flows with well-developed soils. Modified lava tubes and tubes used for cultural practices are also common in the upland agricultural zone.

Thrum (1907 and 1908), Hudson (1932), and Stokes and Dye (1991) represent early archaeological efforts to document site distribution pertinent to the greater Hilo area. Hudson notes there were already no archaeological sites remaining in the city of Hilo by the early 1930s (Hudson 1932:236). All three authors note the dismantling of well-known heiau in the Hilo area (Thrum 1908:240, Hudson 1932:236, Stokes and Dye 1991:152).

INVESTIGATIONS SPECIFIC TO STUDY AREA

Several recent archaeological and historical investigations completed in the immediate vicinity of the present project area have direct bearing on the types and distribution of expected sites and features. The majority of these reports document historic-era sites on well-developed ash and organic soils overlaying a Mauna Loa *pāhoehoe* flow dating to 5,000-10,000 ybp (see Figure 4). Sites are primarily the remains of sugar cane field clearing and in-field collection and processing architecture. Two recent reports (Bush *et al*. 2000, McDermott and Hammatt 2001) provide insight into predicting the types of sites located on the nearby *pāhoehoe* flow dating to 750-1,500 ybp south of the project area. Two studies document historic-era sugar cane agricultural sites on deep soils north of the present project area (Jensen 1991 and Haun 2002).

PHRI conducted an archaeological inventory survey east of the present project area and identified only two sites. Only one of the two sites, SIHP 14947, the Hilo Boarding School and Old Mission Ditch, was recommended for further documentation and preservation. The second site, SIHP 14946, is an historic-era house site associated with sugarcane agriculture.

Haun conducted a field inspection east of the present project and identified 15 sites with 25 component features. There were 19 rock mounds, a road, a low wall, a retaining wall, a terrace, and two platforms. The features all appear to be historic and related to sugar cane agriculture.

Archaeological investigations east of the present project area for the Puʻainako Street Extension within Waiākea, Kūkūau 1 and 2, and Ponahawai *ahupuaʻa* were conducted by Hunt and McDermott (1994) in 1992 and 1993. The study entailed historical background research, pedestrian survey, and limited subsurface testing.

The inventory survey report documents 13 sites (SIHP Sites 50-10-35-18911 to -18923) comprised of 88 individual features. All features were interpreted as dating from A.D. 1880 to 1950, and were interpreted as features associated with the cultivation and processing of sugar cane. Five test-units were excavated within several features and it was concluded that the lack of prehistoric artifacts and traditional subsurface features within them supported the interpretation that the features were historic in origin (Hunt and McDermott 1994:104). The inventory survey report recommended that data recovery be carried out at site complexes as additional excavation work "could potentially yield isolated traces of prehistoric use of the area, presumably for dryland agriculture" (Hunt and McDermott 1994:109-113). The report also recommended extensive archival research, a task later undertaken by Maly (1996).

Cultural Surveys Hawaii conducted an archaeological survey and limited testing on a 163-acre UH Hilo parcel east of the present study area. The report documents four historic sugar cane cultivation sites (SIHP Sites 18667 through 18670) comprised of seven features (one feature contains 25 clearing mounds), including walls, clearing mounds, enclosures, and a remnant sugar cane field. Test-units contained no cultural material or traditional Hawaiian feature components confirming their association with more recent sugar cane cultivation. Sites were situated on older *pāhoehoe* flows with well-developed soils. No further work was recommended.

Kepa Maly's (1996) report combines the results of McEldowney (1979) with traditional Hawaiian history, early European accounts, previous archaeological work, and oral histories to document cultural and agricultural practices in Hilo and the *ahupua'a* of Waiākea. The report focuses on Hawaiian settlement and population expansion in the region of the present study area. Of particular interest is the description of bird snaring and mention of banana growing in the area of the present study (Maly 1996:6-8). Maly also documents the effect of sugar cane cultivation (Waiākea Mill Company operations from the 1870s to 1940s) on pre-Contact archaeological remains within the present project area. While some components of early Hawaiian sites might be incorporated in more modern archaeological features, the clearing of fields and the construction of collection and processing facilities have dismantled or obscured older archaeological sites (Kenneth Bell in Maly 1996:57). Informants who remembered the Waiākea sugar cane plantation fields stated that features such as stone mounds, ramped platforms, terraces, walls, enclosures, and berms (railway berms) were built in order to facilitate sugar cane cultivation and ranching.

Following Maly's (1996) work, SCS (Robins and Spear 1996) conducted an inventory survey on a narrow parcel of land south of the present study area. The project area covered four proposed road alignments for the Pu'ainako Street Extension project and reflected both an elongation and a lateral expansion of the original road alignment study (Hunt and McDermott 1994) from a 120 to 300-foot wide corridor.

The Robins and Spear survey documented the 30 architectural features associated with sites previously reported by Hunt and McDermott (SIHP Sites 18912, 18914, and 18919) as well as 16 additional features that were combined, with features taken by SHPD from SIHP Site 18919, to form a new site (SIHP Site 20681). Robins and Spear (1996:49-52) concluded that all 46 features, representing four sites, were associated with historic sugar cane activities based on the fact that all of the sites are located within or adjacent to known sugar cane fields, all features are representative of formal sugar cane field features, site structure is comparable to other known plantation sites and is atypical of traditional Hawaiian structures, and the documented sites contain historic-era artifacts that are specific to sugar plantation or ranching activities. No traditional Hawaiian components of modern features or pre-Contact artifacts were discovered during the inventory survey work. Robins and Spear (1996:53-56) recommended data recovery for

eight sites within the corridor and concurred with SHPD in the preservation of several other sites.

At the request of the Ho' oikaika Hawaiian Club (HHC), Garcia and Associates (Ganda) conducted supplemental archaeological excavations (reported in Eblé *et al.* 1997) at sites previously identified by Hunt and McDermott (1994). The purpose of the additional work was "to aid in the interpretation of site function and chronology, and to ensure that all cultural remains in the area have been sufficiently identified" (Eblé *et al.* 1997:1). The Hunt and McDermott survey had excavated only five units within 88 features and the sponsoring Ho' oikaika group deemed additional excavations necessary to support or refute the report's site age and function determinations. The supplemental archaeological work performed by Ganda was not considered an official stage in the State of Hawai'i historic preservation process but was deemed a supplemental aid to the previous study.

Seven test-units (typically 1.0 m by 1.0 m) were excavated within six sites previously mapped and recorded by Hunt and McDermott (1994). The sites included SIHP Site 18916, 18911, 18912, 18914, 18915, and 18917. The excavation units yielded historic artifacts such as metal and midden. Three samples of wood charcoal were submitted for radiocarbon testing and were dated to pre-Contact (traditional) and early historic times. The samples were considered problematic since they did not precisely date the architectural structures themselves but were taken from the soil matrix below features and were not associated with any subsurface features such as *'imu* or discrete hearths, for example. The report further concluded that all "intact evidence of pre-Contact occupation and/or activity in the project area has been disturbed or destroyed as a result of post-Contact period activity" (Eblé *et al.* 1997:53). The archaeological features examined as part of this supplemental project were interpreted as associated with sugar cane cultivation and processing, and reinforced the interpretations offered by Hunt and McDermott (1994), Maly (1996), and Robins and Spear (1996). The supplemental testing report recommended preservation for several sites (discussed below) (Eblé *et al.* 1997:56).

The following year an archaeological reconnaissance-level investigation was carried out by SCS along the western (*mauka*) portion of the Pu‘ainako Street Extension, located to the east of the present study area (Spear 1998). While reconnaissance surveys are not recognized by the SHPD as a stage in the historic preservation process, reconnaissance

surveys provide a rapid means of assessing the cultural resources within a given project area. A formal report of a reconnaissance survey is not generally submitted to SHPD because the results are usually incorporated into an inventory survey reports. Twenty-seven features were recorded during the reconnaissance survey and were associated with SIHP Site 18921 previously recorded by Hunt and McDermott (1994). Spear (1998) recommended that an inventory survey be conducted.

The inventory survey work (McGerty and Spear 1999) generated as a result of the previous reconnaissance survey (Spear 1998) was listed as an addendum to the inventory survey report completed by Robins and Spear (1996). McGerty and Spear (1999) re-identified the features documented by Spear (1998) and recorded a total of 17 features. The number of features was reduced from 27 to 17 because several of the features documented during the reconnaissance survey were combined into more discrete feature designations or were assessed as not being archaeological features. All 17 features were assigned to SIHP Site 18921 and 15 of them were interpreted as features associated with historic sugar cane activities cultivation and processing. The inventory survey report notes that SIHP Site 18921 is located on former Waiākea Sugar Company cane fields (Conde and Best 1973:120, as cited in McGerty and Spear 1999:23).

Based on information provided in an interview, two features (Feature 1 and Feature 11) were interpreted as remnants of a modern pasture or piggery. The inventory survey report (McGerty and Spear 1999:25) concurred with Hunt and McDermott (1994:112) that the site was significant under Criterion D and recommended a data recovery investigation.

In August 1999, SCS conducted a reconnaissance-level survey (Dega and Benson 1999) southwest of the UH Hilo Mauka lands project. The survey was performed within a short, expanded section of the highway (western end) occurring just to the south, and partially overlapping the reconnaissance survey area documented in Spear (1998), and the inventory survey work reported in McGerty and Spear (1999). The project area was approximately 1.0 mile long (east-west) and 300 feet wide (north-south) and was situated from 0.40 km to 2.5 km south of Kaumana Drive at the study corridor's western and eastern termini.

Eight archaeological sites were identified within the western border of the project area. Eighteen features were documented including 12 rock mounds, two platforms, two

walls, one alignment, and one stone-lined *'auwai*, or water channel. Seventeen features were interpreted as related to historic sugar cane cultivation and processing, a similar interpretation to that presented previously (Hunt and McDermott 1994, Robins and Spear 1996, McGerty and Spear 1999).

One feature, a rock-lined *'auwai* or water channel, was interpreted as traditional (pre-Contact). The *'auwai* is situated parallel to and between several rock mounds associated with sugar cane cultivation but is suggestive of a traditional water channel because its width (0.80 m) is much smaller than channels typically used for sugar cane field irrigation. Secondly, the gravity-fed system was lined with small cobbles and not metal, as is commonly used in the construction of sugar cane water channels. Thirdly, the channel itself was not deep (average 0.10 m below rock surface) and had not been maintained for some time. Finally, the channel emptied onto a small alluvial plain that would have been well suited to small-scale irrigated taro cultivation. The Dega and Benson (1999) reconnaissance survey report recommended inventory survey work be carried out, including test-excavations within and near the *'auwai* feature.

SCS conducted an inventory survey to complete the reconnaissance-level survey reported by Dega and Benson (1999) at SIHP Site 18921. Eight features were documented, two previously recorded by Spear (1998) or during the Dega and Benson (1999) reconnaissance survey. Features included walls, clearing mounds, rock alignments, a platform, and a stone-lined *'auwai*. Four stratigraphic trenches were mechanically excavated in and around the *'auwai* feature. Trenches were typical 1.80 meters wide and totaled 17 meters in length. The *'auwai* was reinterpreted as an historical sugar cane field irrigation ditch due to a lack of stones lining its bottom as is common in traditional Hawaiian *'auwai*. No evidence was found to substantiate the presence of a *lo'i* associated with the irrigation ditch.

Cultural Surveys Hawaii carried out an inventory survey of a 20-acre parcel for the proposed USDA Pacific Basin Research Center (Bush et al. 2000). The project is located on a parcel along the western-central edge of the UH Hilo Mauka Lands project area on a Mauna Loa *pāhoehoe* lava flow dated to between 750 and 1,500 ybp. A single human femur located in an overhang within a shallow skylight. The site (SIHP Site 22080) was designated a burial and recommended for preservation.

Cultural Surveys Hawaii carried out an additional inventory survey of a 10-acre parcel (adjacent to and west of the 2000 study area) for the proposed USDA Pacific Basin Research Center (McDermott and Hammatt 2001). The project was also located along the western-central edge of the UH Hilo Mauka Lands project area on a Mauna Loa *pāhoehoe* lava flow dated to between 750 and 1,500 ybp. Two post-Contact sites comprised of two features were documented. SIHP Site 22734 consisted of a modified outcrop and SIHP Site 22735 consisted of a stacked stone causeway. No further work was recommended at both sites.

Sixteen new sites (80 features) and three previously recorded sites were recorded during inventory survey work conducted on lands just east of the present project area (Escott 2004). Eleven of the sites on the project area were associated with Historic-era sugarcane agriculture, three were associated with WWII military training activities, one was associated with Historic-era ranching, and four were associated with Historic-era dirt roads. None of the sites were recommended for preservation, two of the military sites were recommended for data recovery, and the seventeen remaining sites required no further work.

EXPECTED ARCHAEOLOGICAL PATTERNS

Based on previous archaeological studies, geological studies, historical research, interviews, and County Planning Department records it is expected that any archaeological sites located on the current project area will be related to historic period activities. There are no known pre-Contact era habitation areas or concentrations of traditional land-use patterns within this portion of Ponahawai. Initial occupation and use of the area appears to be associated with historic era homesteads.

RESULTS OF FIELDWORK

Two modern cement foundations were documented on the current project area parcel (Figure 7 and 8). They are in close proximity to each other and were recorded as a single site. They are likely the remains of structures used by the military as part of Camp POW, and later used as residential rental properties. No other archaeological sites or historic properties exist on the project area. Descriptions of the two concrete foundations are recorded below.

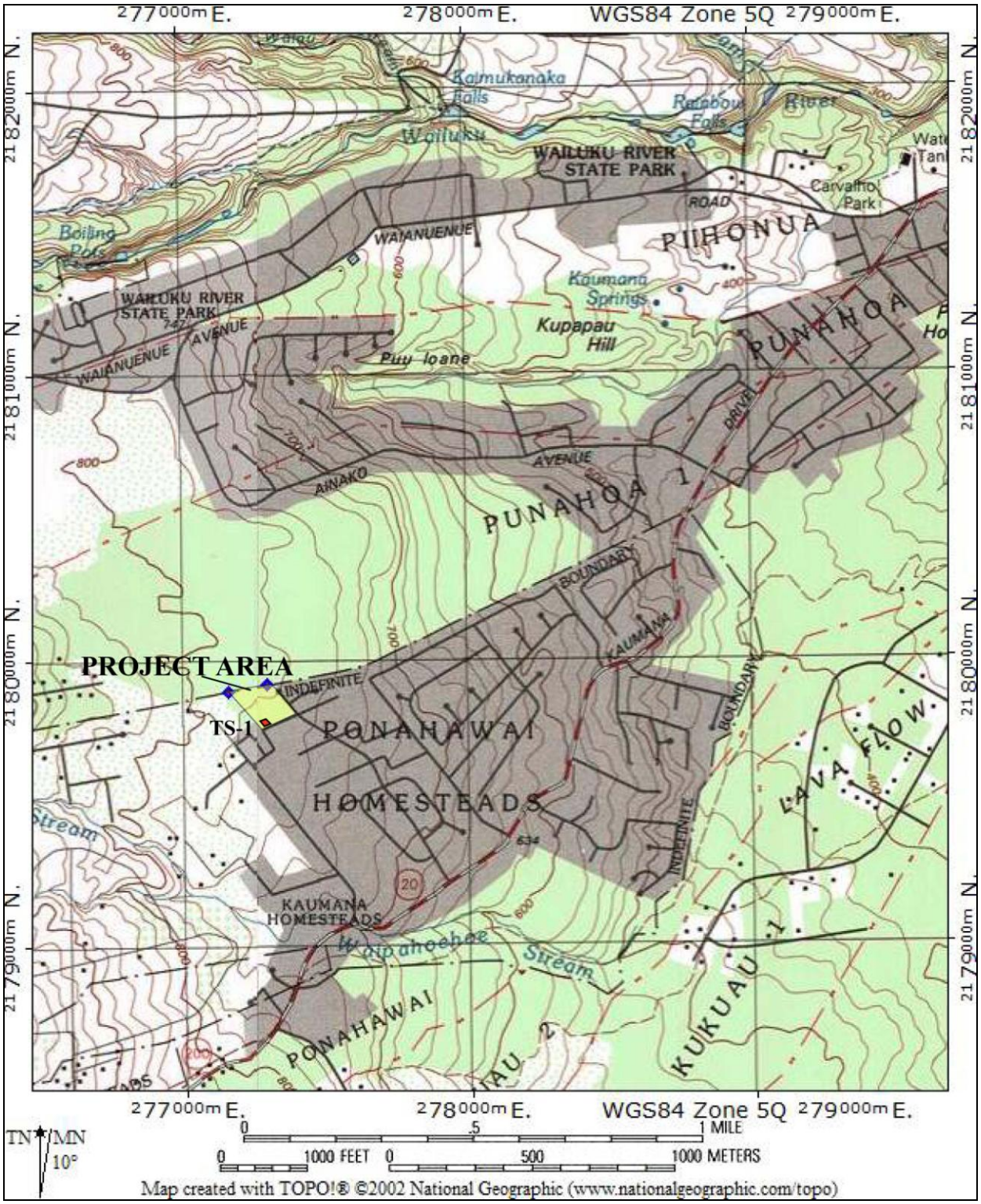

Figure 7: Location of Site 29235 (Shaded Red) on USGS Map (Hilo Quad 1995).

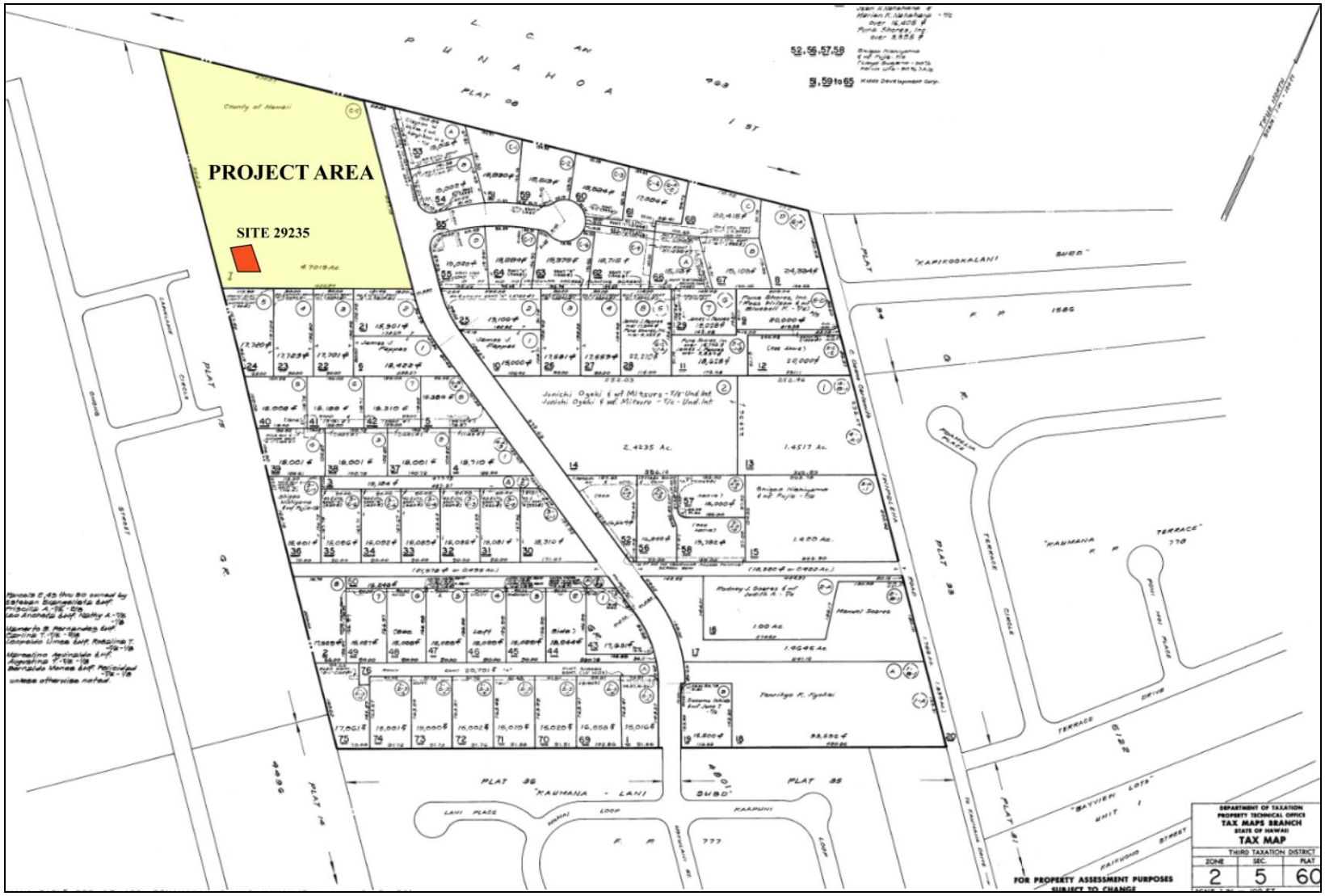

Figure 8: Location of Site 29235 (Shaded Red) on TMK (3) 2-5-60 Map.

SITE 29235	**Concrete Foundations**
FUNCTION:	Building Foundations
AGE:	Modern
DIMENSIONS:	Length: 30 m N/S; Width, 15 m; Height, 0.40 Max.
CONDITION:	Poor
INTEGRITY:	Altered by Weathering and Demolition
SURFACE ARTIFACTS:	Modern car parts, metal household trash, glass bottles, etc.
EXCAVATION:	None

DESCRIPTION: Site 29235 is two building foundations (Feature 1 and Feature 2) located on a bulldozed level gravel and dirt pad within the southwest corner of the project area (see Figure 7 and 8). There is an overgrown, rough driveway that provides access to the foundations from Hokulani Place to the south.

Feature 1 is located approximately thirteen meters north of Hokulani Place. It measures 8.75 m long (140˚/320˚) by 5.00 m by a maximum of 15 cm in height (Figures 9 through 13). The foundation is constructed of concrete with mechanically crushed gravel. The concrete was poured into forms constructed around the foundation. Feature 1 was constructed to form three rooms within the building structure. No lintels for doorways are present in the foundation. There are two three-inch water pipes along the outside edges of the foundation that likely supplied water and drainage for piped water within the building. Feature 1 has been impacted by weathering and the demolition and removal of the building. It is cracked in several places, is covered in a dense root mat, and is in poor condition. No further work is recommended at Feature 1.

Feature 2 is a rectangular foundation located approximately eleven meters southeast of Feature 1. It measures 8.00 m long (150˚/330˚) by 5.00 m by a maximum of 40 cm in height (Figures 14 through 16). The foundation is constructed of concrete with mechanically crushed gravel. The concrete was poured into forms constructed around the foundation. Feature 2 was constructed to form four rooms within the building structure. Three lintels for doorways are present in the foundation. There are two four inch water pipes in the foundation that likely supplied water and drainage for piped water within the building. Feature 2 has been impacted by weathering and the demolition and removal of the building. It is cracked in several places, is covered in a dense root mat, and is in poor condition. No further work is recommended at Feature 2.

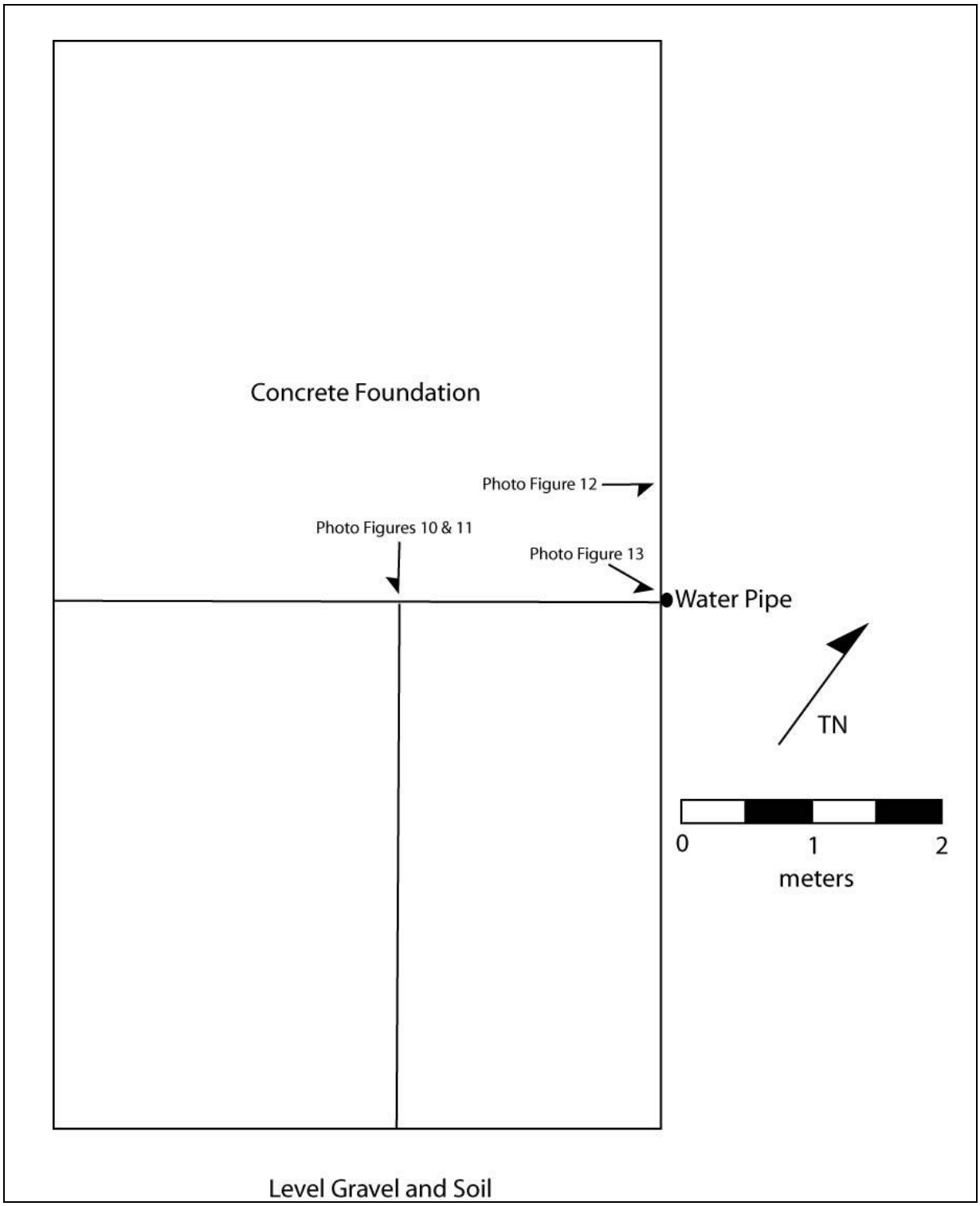

Figure 9: Plan View of Site 29235 Feature 1 Concrete Foundation.

Figure 10: Photograph of Site 29235 Feature 1, Looking Southeast (see Figure 9 for Photo location).

Figure 11: Photograph of Site 29235 Feature 1, Close up, Looking Southeast (see Figure 9 for Photo location).

Figure 12: Photograph of Site 29235 Feature 1, Looking Northeast (see Figure 9 for Photo location).

Figure 13: Photograph of Site 29235 Feature 1 Pipe, Looking Southeast (see Figure 9 for Photo location).

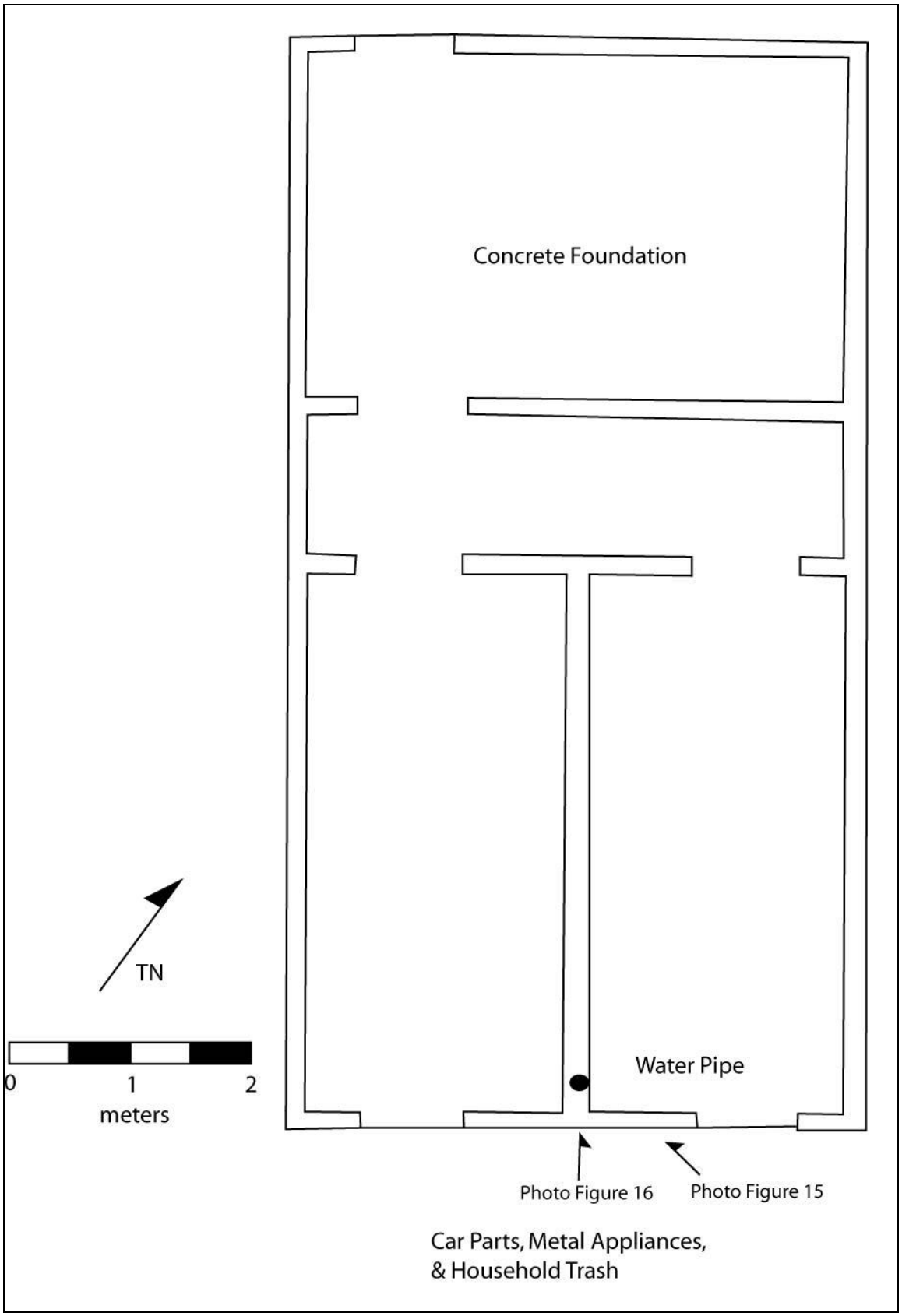

Figure 14: Plan View of Site 29235 Feature 2 Concrete Foundation.

Figure 15: Photograph of Site 29235 Feature 2 Looking Northwest (see Figure 14 for Photo location).

Figure 16: Photograph of Site 29235 Feature 2 Looking Northwest (see Figure 14 for Photo location).

SIGNIFICANCE ASSESSMENT & RECOMMENDATIONS

The single site identified during this project was assessed for significance as outlined in Hawai‘i Administrative Rules §13-275-6. To be assessed as significant a site must be characterized by one or more of the following five criteria:

(A) It must be associated with events that have made a significant contribution to the broad patterns of our history, or be considered a traditional cultural property.

(B) It must be associated with the lives of persons significant in the past.

(C) It must embody distinctive characteristics of a type, period, or method of construction, or represent a significant and distinguishable entity whose components may lack individual distinction.

(D) It must have yielded or may be likely to yield, information important in prehistory or history.

(E) Have important value to native Hawaiian people or other ethnicities in the state, due to associations with cultural practices and traditional beliefs that were, or still are, carried out.

Site 29235 is assessed as significant under criterion "D" as it is likely to yield information important to history. During the current AIS study, it was determined that the site was a modern (1940s to 1970s) structure, most recently used as a residence, based on household refuse that dates to that era. The site are also likely the remains of Camp POW buildings used by the military during WWII. The two foundations have been altered by weathering and demolition, and are in poor condition. They no longer have the integrity to be considered significant under criteria "A" or "C".

Historic documentation, oral interviews, and physical data collected and recorded during the current study has adequately ascertained the timing and function of the site. No further work is recommended for Site 29235 .

REFERENCES CITED

Bingham, M.
1969 *A Residence of Twenty-one Years in the Sandwich Islands*. Hartford.

Bird, I.
1974 Six months in the Sandwich Islands. Charles E. Tuttle Co., Rutland.

Borthwick, D., J. Collins, W.H. Folk, and H.H. Hammatt
1993 *Archaeological Survey and Testing of Lands Proposed for Research and Technology Lots at the University of Hawaii at Hilo (TMK:2-4-01:7 and* 41). On file at State Historic Preservation Division, Kapolei, Hawaii.

Borthwick, D., and H.H. Hammatt
1993 *Supplemental Archaeological Survey and Testing of the Proposed University of Hawaii at Hi/o Expansion Area (TMK:2-4-01:19).* On file at State Historic Preservation Division, Kapolei, Hawaii.

Bush, A.R., M. McDermott, and H.H. Hammatt
2000 *Archaeological Inventory Survey of an Approximately 20-Acre Parcel Proposed for the USDA Pacific Basin Agricultural Research Center Located near the intersection of Komohana and Puainako Streets, South Hilo, Hawai'i Island (TMK 2-4-01: por122)*, Prepared for SSFM International Inc. On file at State Historic Preservation Division, Kapolei, Hawaii.

Dega, M.F., and LB. Benson
1999 *Letter Report concerning Archaeological Reconnaissance Survey of the Puainako Street Realignment/Extension Project Expanded Corridor, Waiakea, Kukuau* 1 *and* 2 *and Ponahawai, South Hilo District, Island of Hawai 'i.* Scientific Consultant Services Inc., Honolulu, Hawai'i.

Dega, M.
2000 *Addendum To: Archaeological Inventory Survey of the Pu'ainako Street Realignment/Extension Project, Expanded Corridor, Waiakea, Kukuau 1 and 2, South Hilo District, Hilo, Island of Hawai'i.* On file at State Historic Preservation Division, Kapolei, Hawaii.

Dega, M., and R.L. Spear
2001 *A Preservation Plan for the Pu'ainako Street Extension and Widening Project: Sites 50-10-35-18914, 18915, 18917, and a Boulder/Path Alignment within Kūkūau 1 and 2 and Waiākea, South Hilo District, Island of Hawai'i*. On file at State Historic Preservation Division, Kapolei, Hawaii.

Donn, J.M.
1901 Hawaii Territory Survey, Hawaii Map.

Eblé, F.J., T. Denham, and J. Pantaleo
1997 *Draft Report of Supplemental Archaeological Testing Conducted Along the Proposed Alternate Alignments of Pu'ainako Street (TMK:2-4-01), Hi/o, Hawaii.* On file at State Historic Preservation Division, Kapolei, Hawaii.

Ellis, W.
1963 *Journal of William Ellis*. Honolulu Advertiser Publishing Co., Ltd, Honolulu.

Escott, G.E.
2004 An Archaeological Inventory Survey on Approximately 288 Acres of Land for the University of Hawai'i-Hilo Mauka Lands Development. Prepared for PBR Hawai'i. SCS Report 361-4, Honolulu.

Gerrish, G.
2000 *Vegetation Report for the Puainako Street Extension and Widening Project*, Prepared for Okahara & Associates, Engineering Consultants, Hilo.

Handy, E.S.C., and E.G. Handy
1972 Native Planters in Old Hawaii. *B.P. Bishop Museum Bulletin 233*. Bishop Museum Press, Honolulu.

Haun, A.E.
2002 Archaeological Field Inspection Sure Save Parcel (TMK: 3-2-3-037:001) Land of Ponahawai, South Hilo District, Island of Hawai'i. Letter report on file at Hawaii County Planning Department, Hilo.

Hudson, A.E.
1932 *Archaeology of East Hawaii*, Ms. In Department of Anthropology, Bishop Museum, Honolulu.

Hunt, T.L.
1992 *Interim Report: Archaeological Inventory Survey Puainako Street Extension Project: Lands of Waiākea, Kukuau 1 and 2, and Ponahawai, South Hilo District, Island of Hawaii*, Prepared for Okahara & Associates, Engineering Consultants, Ms. on file at State Historic Preservation Division, Kapolei, Hawaii.

Hunt, T., and M. McDermott
1994 *Archaeological Inventory Survey, Puainako Street Extension Project: Lands of Waiakea, Kukuau* 1 *and* 2, *and Ponahawai, South Hi/o District, Island of Hawai'i*, Prepared for Okahara & Associates, Engineering Consultants, Ms. on file at State Historic Preservation Division, Kapolei, Hawaii.

Jensen, P.M.
1991 Archaeological Inventory Survey, Komohana Golf Course, Lands of Ponahawai and Punahoa 1-2, South Hilo District, Island of Hawaii (TMK:3-2-3-44:09). Prepared for KTA Consulting Group c/o The Keith Companies-Hawaii 16 Shipman Street Hilo, Hawaii 96720.

Kamakau, S.M.
1992 *Ruling Chiefs of Hawaii*. Kamehameha Schools Press, Honolulu.

Kelly, M., B. Nakamura, and Dorothy Barrère
1981 *Hilo Bay: A Chronological History, Land and Water Use in the Hilo Bay Area, Island of Hawai'i*, Bishop Museum, Honolulu.

Maly, K.A.
1996 *Historical Documentary Research and Oral History Interviews: Waiakea Cane Lots* (12, 13, 17, 18, *19,20, and 20-A).* Kumu Pono Associates, Hilo, Hawai'i. On file at State Historic Preservation Division, Kapolei, Hawaii.

Maly, K.A., A. Walker, and P. Rosendahl
1994 *Archaeological Inventory Survey, Waiakea Cane Lots Portion of Parcel* 6. Paul H. Rosendahl, Ph.D., Inc., Hilo, HI. On file at State Historic Preservation Division, Kapolei, Hawaii.

McEldowney, H.
1979 *Archaeological and Historical Literature Search and Research Design: Lava Flow Control Study, Hilo,* Hawaii, Department of Anthropology, Bishop Museum. Prepared for the U.S. Army Engineer District, Pacific Ocean.

McDermott, M., and H.H Hammatt
2001 *Addendum to: Archaeological Inventory Survey of an Approximately 20-Acre Parcel Proposed for the USDA Pacific Basin Agricultural Research Center Located near the intersection of Komohana and Puainako Streets, South Hilo, Hawai'i Island (TMK 2-4-01: por122),* Prepared for SSFM International Inc. On file at State Historic Preservation Division, Kapolei, Hawaii.

McGerty, L, and R.L Spear
1999 *Addendum to: An Inventory Survey of the Pu'ainako o Street Realignment/Extension Project Expanded Corridor, Waiakea, Kukuau* 1 *and* 2 *and Ponahawai, South Hilo District, Island of Hawai'i.* Scientific Consultant Services Inc., Honolulu, Hawai'i.

Moniz, J.J,
1992 "Summary of Prior Archaeological Work" *Historical and Archaeological Synthesis of Land Use and Settlement Patterns Waiākea Ahupua'a, Hilo Hawaii*, UH Anthropology 645: Historic Preservation, Fall 1992, Honolulu.

Narimatsu, C.
2010 Curtis Narimatsu Says: March 11, 2010 at 5:25 pm. Online at www.bigislandchronicle.com.

Robins, J.J., and RL. Spear
1996 *An Inventory Survey of the Puainako Street Realignment/Extension Project Expanded Corridor, Waiakea, Kukuau* 1 *and* 2 *and Ponahawai, South Hilo District, Island of Hawai'i.* Scientific Consultant Services Inc., Honolulu, Hawai'i.

Sato, H., W. Ikeda, R Paeth, R Smythe, and M. Takehiro Jr.
1973 *Soil Survey of Island of Hawaii, State of Hawaii.* United States Department of Agriculture Soil Conservation Service. Washington D.C.

Smith, M.
1991 *Site Inspection of the University of Hawaii – Hilo Perimeter Alignment, Research and Technology Park Phase I, Waiākea, South Hilo, Hawaii Island (TMK: 3-2-4-01:7)*, November 8, 1991, State Historic Preservation Division, Department of Land and Natural Resources, Honolulu.

1992 *Field Inspection for State Land Disposition of the Proposed Department of Water Supply Office Site in Hilo, Waiākea Cane Lots, Waiākea, South Hilo, Hawaii Island (TMK: 3-2-4-56:1)*, January 3, 1992, State Historic Preservation Division, Department of Land and Natural Resources, Honolulu.

Spear, R.L.
1993 *An Inventory Survey of the H.C.E.O.C. (Option II) Parcel, Piihonua Ahupua'a, South Hilo District, Hilo, Island of Hawai'i [TMK: 2-4-57-10]*. Prepared for Roy Takamoto, Ms. on file at the State Historic Preservation Division, Kapolei Hawaii.

1995 *Data Recovery Excavations for Sites 50-10-35-19431*, 19432, 19433, *and 19434, Land of Waiakea, South Hilo District, Island of Hawai'i (TMK:2-4-57:01).* Scientific Consultant Services Inc., Honolulu, Hawai'i.

1998 *Letter Report concerning Archaeological Reconnaissance Survey of the Puainako Street Realignment/Extension Project Expanded Corridor, Waiakea, Kukuau* 1 *and* 2 *and Ponahawai, South Hilo District, Island of Hawai 'i.* Scientific Consultant Services Inc., Honolulu, Hawai'i.

Stewart, C.S.
1970 *Journal of a Residence in the Sandwich Islands*. University of Hawai'i Press, Honolulu.

Stokes, J.F.G., and T. Dye
1991 *Hieau of the Island of Hawai'i; A Historic Survey of Native Hawaiian Temple Sites*. Bishop Museum, Honolulu.

Thrum, T.G.
1907 "Heiau and heiau sites throughout the Hawaiian Islands. *Hawaii Almanac and Annual 1908*.

1908 *Hawaii Almanac and Annual 1909*, Honolulu: [n.p].

Wolfe, E.W., and J. Morris
1996 Geological Map of the Island of Hawai'i. U.S.G.S. Miscellaneous Investigations Series. Department of the Interior, Washington, D.C.

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October 11, 2013

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DOC NO: 1309SN04
Archaeology

Dear Mr. Escott:

SUBJECT: **Chapter 6E-42 Historic Preservation Review –**
Revised Archaeological Inventory Survey Report for a 4.7 Acre Parcel in Kaumana Pōnahawai Ahupua'a, South Hilo District, Island of Hawai'i
TMK: (3) 2-5-060:007

Thank you for submitting the draft final report titled *Archaeological Inventory Survey of a 4.7-Acre Parcel in Kaumana Pōnahawai Ahupua'a, South Hilo District, Island of Hawai'i TMK: (3) 2-5-060:007,* (G. Escott, August 2012). We received your submittal August 15, 2012. We apologize for the delayed review and thank you for your patience. The survey area is a 4.7 acre parcel being considered for the location of a County of Hawai'i park.

Fieldwork consisted of east/west pedestrian transect sweeps at ten meter intervals. Ground visibility was good due to previous mechanical clearing of the parcel. In a review of a previous draft of this report, SHPD requested photos of the features be included in the report (Log No. 2012.0772, March 2012). Photos depicting the features have been included in the current version. We believe that the survey has adequately covered the project area, finding two previously unidentified features within the current survey area. A newly identified site (SIHP Site 50-10-35-29235) is inclusive of these two features. Site 29235 is made up of two features; feature 1 and 2 are both concrete building foundations determined to be modern and in poor condition due to previous demolition of the buildings and weathering. Based on historic documentation, oral interviews, and physical data collected during the survey, the features were built and functional between the 1940s and 1970s.

Site 29235 recorded in this current survey has been assessed as significant under Criteria "d" and no further work is recommended for this site. SHPD concurs with the significance assessment and that no further work is necessary for this site. SHPD believes that this report meets the requirements of HAR 13-276 and is therefore accepted by SHPD. Please make the following corrections in the final submittal:

1. Pages 11 - 13, please check the spelling in the location boxes for Kukuau 1 & 2. Kukuau has been misspelled several times.

With the above corections in place, please send one hardcopy of the document, clearly marked **FINAL**, along with a copy of this review letter and a text-searchable PDF version on CD to the Kapolei SHPD office, attention SHPD Library. Please contact Sean Nāleimaile at (808) 933-7651 or Sean.P.Naleimaile@Hawaii.gov if you have any questions or concerns regarding this letter.

Aloha,

Theresa K. Donham
Archaeology Branch Chief